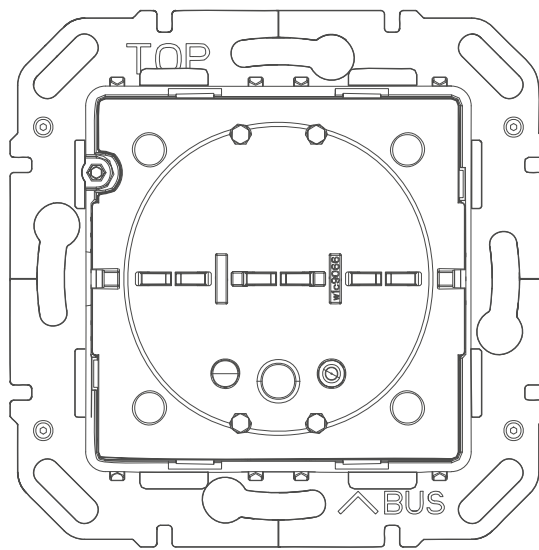


KNX building automation system KNX push-button module



Insert for push button, KNX Secure, 1-gang/2-gang

WAK2011, WAK2012



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1 Introduction

These instructions describe the safe and correct installation and commissioning of the KNX Secure push buttons. These instructions are provided as information in addition to the product.

1.1 Symbols used

Symbols used

- Single-step instruction or any sequence.
- ① Multi-step instruction. Sequence must be observed.
- List
- Reference to additional documents/information

	Scope of delivery		Design and layout of the device		Dimensions
	Installation		Dismantling		Assembling of accessories
	KNX-certified		Supports KNX Data Secure		Installation by a qualified electrician
	Compatibility with KNX S-mode (ETS)		Compatibility with Hager Easytool		
	Suitable for use throughout Europe and Switzerland		Directive 2012/19/EU on waste electrical and electronic equipment		Additional information

Table 1: Symbols used

Symbol	Warning word	Consequence of non-observance
	Danger	Leads to serious injuries or death.
	Warning	Can lead to serious injuries or death.
	Caution	Can lead to minor injuries.
	Caution	Can lead to device damage.
	Note	Can lead to physical damage.

Symbol	Description
	Warning against electric shock.
	Warning against damage from mechanical stress.
	Warning against damage from electricity.

Symbol	Description
	Warning against damage from fire.

Symbol	Signal word	Definition
	Comment	Indicates important instructions.
	Information	Indicates useful information about the product.

1.2 Target group



Electronic devices may only be assembled, installed and configured by a specialist with electrical training and certification in accordance with the relevant installation standards of the country. The accident prevention regulations valid in the appropriate countries must be complied with.

In addition, these instructions are intended for system administrators and electrically trained specialists.

2 Safety instructions

Electrical devices must only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, guidelines, regulations, directives, safety and accident prevention directives of the country.

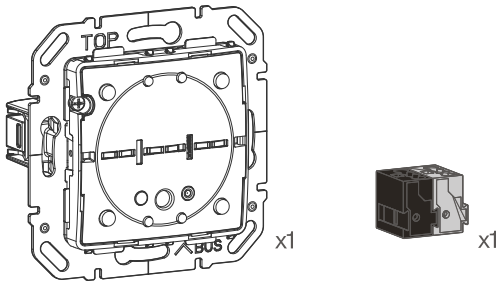
Failure to comply with these installation instructions may result in damage to the device, fire or other hazards.

When installing and routing cables, always comply with the applicable regulations and standards for SELV electrical circuits.

During renovation work, protect the device from contamination from paint, wallpaper paste, dust, etc. The device could get damaged.

3 Scope of delivery





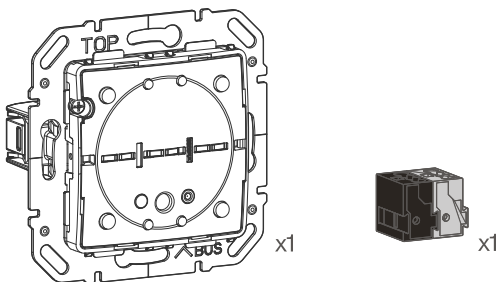
x1

x1



<https://hgr.io/r/WAK2011>





x1

x1



<https://hgr.io/r/WAK2012>

4 Design and layout of the device

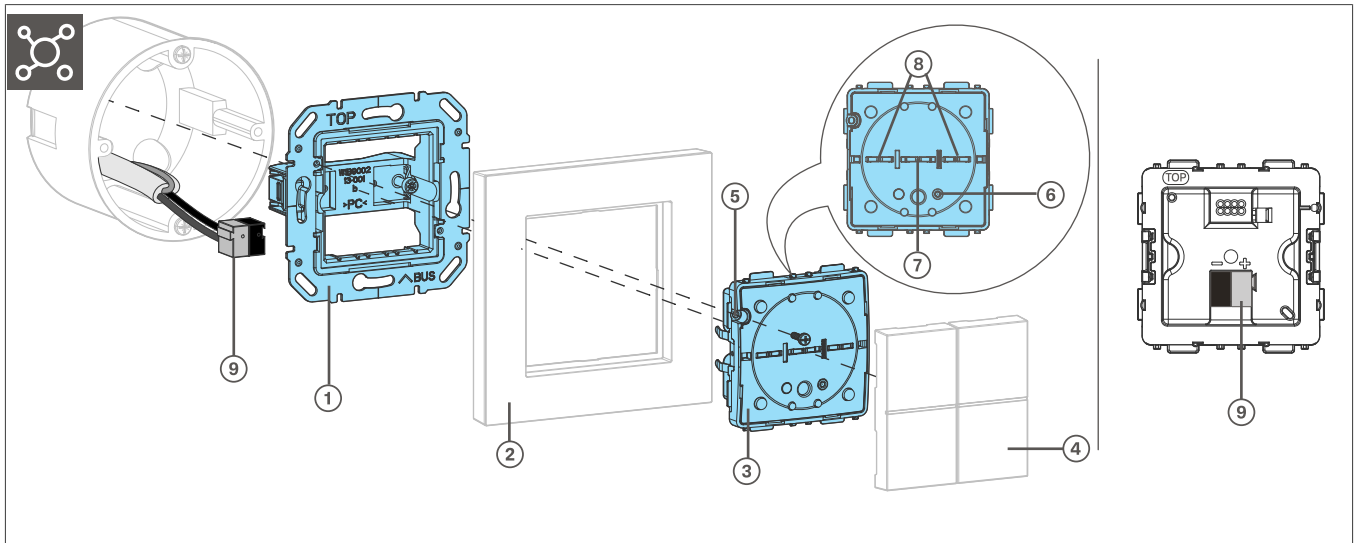


Fig. 1: Design and layout of the device

- ① Supporting ring with fixing claws
- ② Frame (not in scope of delivery)
- ③ KNX Secure push button insert (depending on design)
- ④ Not included in the scope of delivery
- ⑤ Drill hole for tamper-proof screw (screw WDN9011 not included)
- ⑥ Programming button
- ⑦ Button status LEDs (WAK2011)
- ⑧ Button status LEDs (WAK2012)
- ⑨ KNX bus connection terminal

5 Function

5.1 Functional description

The modular control units are fitted with an integrated bus coupler. Installation is carried out by connecting the base element to the supporting ring; the cover is to be ordered separately. The push-buttons can be freely assigned to functions for switching/toggling, dimming, roller shutter/blind, timer, value 1 byte, value 2 bytes, colour control, room thermostat extension unit, priority, scene, 2-channel mode, step switch and automatic control deactivation. The individual configuration of the button assignment is carried out via the ETS.

The status LEDs integrated into the control buttons indicate the current status of the selected function.

System information

This device is a product of the KNX system and corresponds to the KNX guidelines. Detailed specialised knowledge obtained from KNX training courses is required for understanding.

The device is KNX Data Secure-compatible. KNX Data Secure can be configured in the ETS project and offers protection against manipulation in building automation. Detailed knowledge on this subject is required. A device certificate (FDSK), which is attached to the device (QR code sticker), is required for commissioning a KNX Secure device. During installation, the device certificate must be removed from the device and kept in a safe place.

The planning, installation and commissioning of the device are carried out with KNX-certified software.

5.2 KNX systemlink system information

Systemlink commissioning

The function of the device is software-dependent. The software is to be obtained from the product database. You can find the latest version of the product database, technical descriptions as well as conversion and additional support programmes from our website.

easylink commissioning

The function of the device is configuration-dependent. The configuration can also be performed using devices developed specially for simple setting and commissioning.

This type of configuration is only possible with devices compatible with the easylink system. easylink stands for easy, visually supported commissioning. Preconfigured standard functions are assigned to the inputs/outputs by means of a service module.

5.3 Correct use

- Operation of loads, e.g. light ON/OFF, dimming, blinds UP/DOWN, saving and retrieving light scenes
- Installation into wall box according to DIN 49073

5.4 Product characteristics

- Commissioning and programming in S-mode and E-mode
- KNX Data Secure-compatible
- Push-button functions: Switching/dimming, shutter/blind, value transmitter, timer, colour control, scene, room thermostat extension unit, priority, 2-channel mode, step switch and automatic control deactivation

- Status LED depending on the version of the device (Fig. 2 and Fig. 3)
- Function and colour of the status LEDs configurable for the device

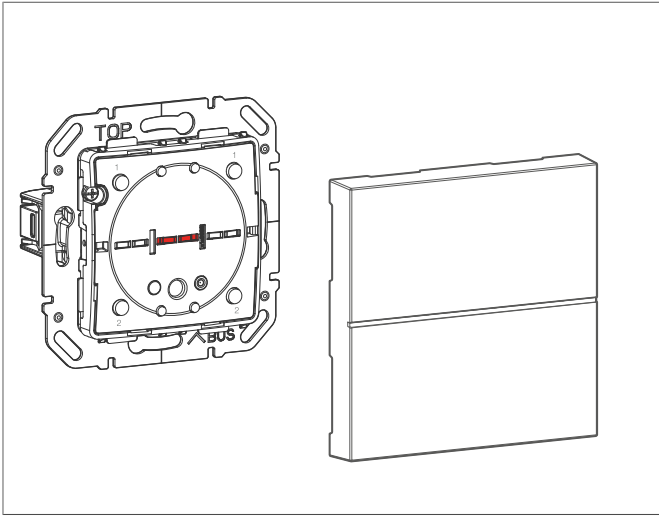


Fig. 2: Push button, 1-gang cover with 2 buttons

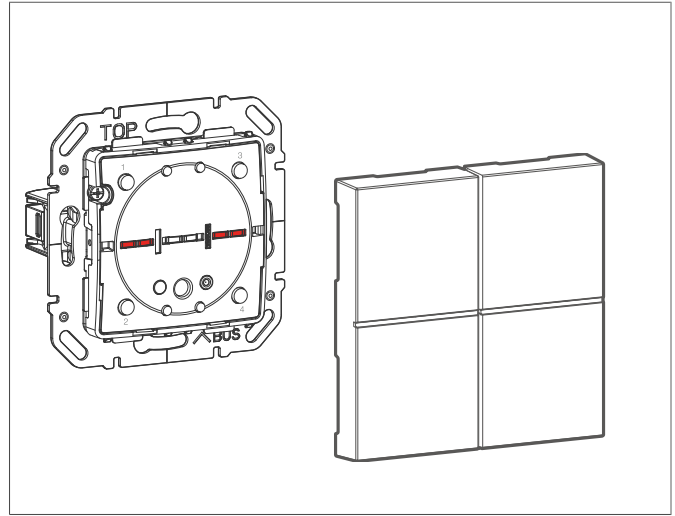


Fig. 3: Push button, 2-gang cover with 4 buttons

6 Operation

Triggering of functions and operation of electrical loads takes place via push-button operation areas, and can be set individually for each device.

Operation of the single button:

- Switching lighting on/off and dimming brighter/darker is carried out alternately by repeated pressing of a push-button operation area.

Operation as rocker (pair of buttons):

- Two push-button operation areas one below the other form a pair of buttons. For example, pressing the top surface switches/dims lighting on/makes it brighter, pressing the bottom surface switches it off/makes it darker.

7 Installation and electrical connection



Danger

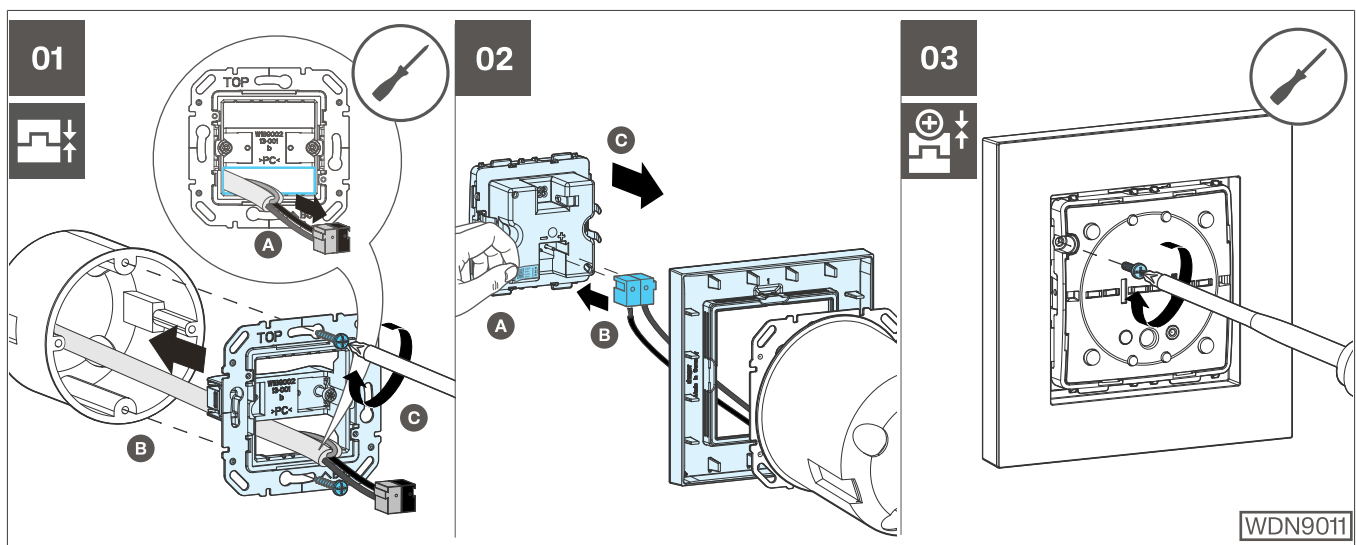
Electric shock when live parts are touched!

An electric shock can lead to death!

- Disconnect all connection cables before working on the device and cover any live parts in the area!

7.1 Connection and installation of the device

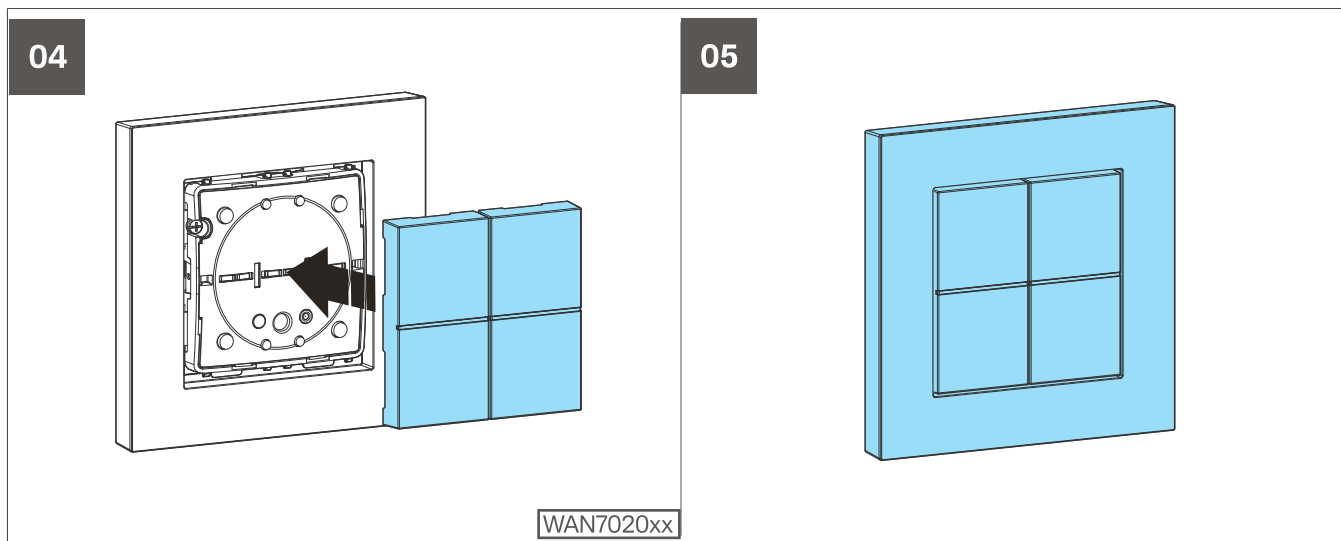
- Route the KNX bus connection cable underneath the centre bar of the supporting ring.
- Fit the supporting ring onto the device box, ensuring it is correctly positioned according to the 'TOP' marking.
- Remove the KNX QR code sticker from the device and store it safely for future use.
- Route the bus cable with the connecting terminal through the frame and connect it to the rear of the device.
- Optional: Assemble the tamper-proof protection using a screw (screw not included in the scope of delivery).



Note

The programming key can only be accessed before the keys are fitted. Therefore, commissioning and training of the device in the software should be carried out preferably before the button is assembled.

- Attach the buttons to the push-button module.



7.2 Dismantling



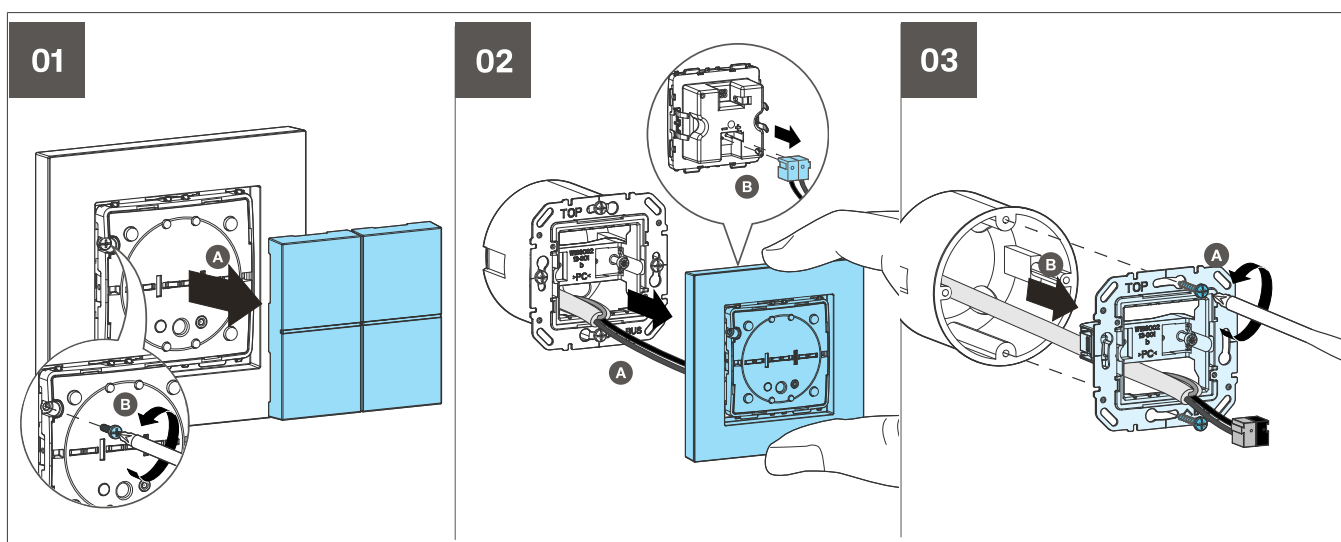
Danger

Electric shock when live parts are touched!
An electric shock can lead to death!

- Disconnect all connection cables before working on the device and cover any live parts in the area!

Dismantling the device

- Remove the buttons from the push-button module.
- If present, loosen the tamper-proof screw.
- Remove the push-button module from the supporting ring. Hold the design frame while doing so.
- Remove the KNX bus connection terminal from the device.
- Release the supporting ring from the wall box.



Dispose of the device in line with the corresponding guidelines of the country (see [Disposal note](#)) or contact the point of sale for any warranty claim.

8 Commissioning

The device can be programmed in three ways:

- KNX systemlink mode (standard ETS programming)
- KNX Secure mode
- KNX easylink mode

8.1 Commissioning in KNX systemlink mode (ETS)

- ☒ The device is connected and ready for use.
- ☒ The cover is not mounted.

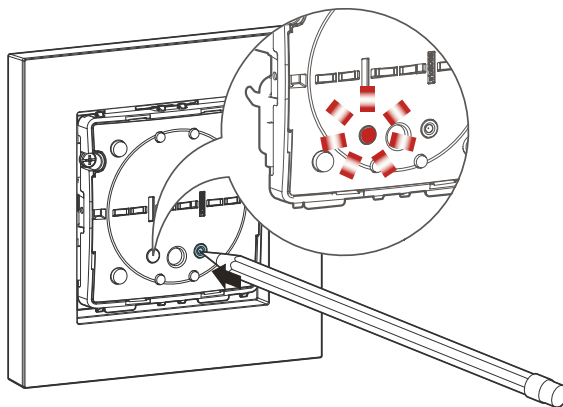
systemlink – Loading the physical address and application software



The physical address can only be assigned to one device. Only one device can be in programming mode.

It is recommended to set the physical address before installation.

- 1 Switch on the bus voltage.
- 2 Press the programming button.
The programming LED lights up.



If the button does not light up, no bus voltage is present on the device.

- 3 Load the physical address into the device.
The programming LED goes out.
- 4 Load the application software into the device.
- 5 Note down the physical address on the labelling field.



If incompatible application software is loaded, the status LEDs flash to indicate this.

8.2 Commissioning in KNX Secure mode

☑ The device has been installed and connected so that it is ready for operation.

- Activate safe commissioning mode in ETS.
- Enter the device certificate (QR code), scan it or add it to the project in ETS.



Note!

Use a high-resolution camera to scan the QR code.

- 3 Document all passwords and keep them in a safe place.
- 4 Remove the device certificate (QR code) from the device and store it with the passwords.
- 5 Note down the device certificate along with the physical address and item reference in a list.

8.3 Commissioning in KNX easylink mode

The function of the device is configuration-dependent. The configuration can also be performed using devices developed specially for simple setting and commissioning.

This type of configuration is only possible with easylink system devices. easylink stands for easy, visually supported commissioning. Preconfigured standard functions are assigned to the in/outputs by means of a service module.

8.4 Commissioning the device

☑ The device has been installed and connected correctly.

- 1 Switch on the mains voltage.
- 2 Switch on the bus voltage.

Depending on the parameterisation, the status LEDs of the buttons light up.

9 Appendix

9.1 Technical data

KNX Medium	TP1-256
Configuration mode	S-Mode, E-Controller
KNX supply voltage	21 ... 32 V $\overline{\text{SELV}}$
Current consumption	Typ. 20 mA
Operating height	Max. 2000 m
Degree of contamination	2
Overvoltage category	III
Degree of protection	IP20
Operating temperature	-5 ... +45°C
Dimensions (W x H x D)	55 x 55 x 28 mm

9.2 Troubleshooting

Bus operation not possible.

Bus voltage is not present.

- 💡 Check bus connection terminals for correct polarity.
- 💡 Check the bus voltage by briefly pressing the programming button. The red LED lights up when bus voltage is available.

9.3 Accessories

Accessories mandatory

	Cover for push button, 1-gang	WAN7010xx
	Cover for push button, 2-gang	WAN7020xx

Optional accessories

Tamper-proof screw for electronic modules	WDN9011
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9.4 Disposal note



Correct disposal of this product (electrical waste).

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its documentation indicates that it should not be disposed of with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this device from other types of waste. Recycle the device responsibly to promote the sustainable reuse of material resources.

Household users should contact either the dealer where they purchased this product, or their local government office, for details of where and how they can take this device for environmentally safe disposal.

Commercial users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.



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