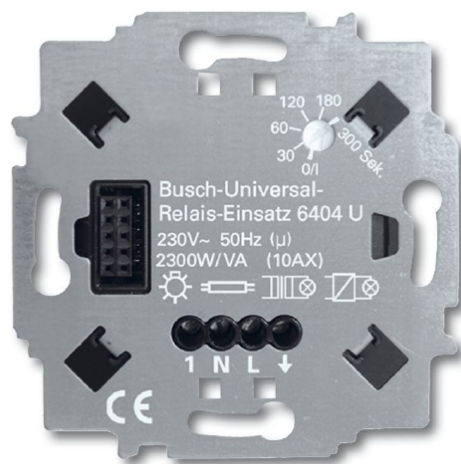


# Operating Instructions Busch-Dimmer®

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## Universal relay insert 6404 U



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## 1 Safety



### Warning

#### **Electric voltage!**

Risk of death and fire due to electrical voltage of 230 V.

- Work on the 230V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

## 2 Intended use

The device is to be used exclusively with the components that are supplied and licensed as described in chapter "Setup and function".

## 3 Environment



### **Consider the protection of the environment!**

Used electric and electronic devices must not be disposed of with domestic waste.

- The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

All packaging materials and devices bear the markings and test seals for proper disposal. Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.

The products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU Directive 2002/96/EC WEEE and 2002/95/EC RoHS)

(EU REACH ordinance and law for the implementation of the ordinance (EC) No.1907/2006)

## 4 Operation

The universal relay insert makes control possible in the two operating modes "Switch" and "Timer".

The connected loads can be controlled directly with control element "6730-...". See the respective operating instructions.

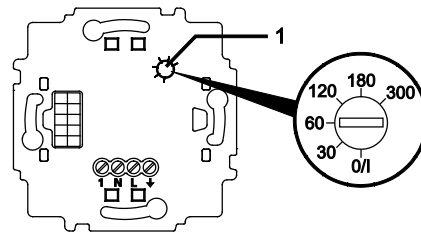


Fig. 1: Insert with selector potentiometer

### Operating mode "Switch"

- Set the selector potentiometer (Fig. 1 (1)) on **0/I**.
- Pressing the top half of the rocker switch switches the light on.
- Pressing the bottom half of the rocker switch switches the light off.

### Operating mode "Timer"

The switch-off delay can be set in five steps between **30** and **300 seconds**, see table.

- Set the selector potentiometer (Fig. 1 (1)) to the desired value.
- Pressing the top half of the rocker switch switches the light on. The light will switch off automatically after the time set on the potentiometer. A manual switch-off is not possible.
- If the button is pressed once more during this time, the switch-off time will be restarted.

Potentiometer setting	Switch-off time
0/I	No timer-controlled switch-off
30 ... 300 seconds	30 seconds
	60 seconds
	120 seconds
	180 seconds
	300 seconds

### Control via extension unit button

Alternatively, control is also possible via an extension push-button, which switches the light on and off.






## 5 Technical data

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General	
Mains voltage	230 V AC $\pm$ 10%, 50 Hz
Nominal power	2300 W/VA
Maximum cable length of push-button	100 m
Inputs	1
Polling voltage	230 V AC, sensing pulse, L-wire
Outputs	1 normally open contact, potential-bound
Nominal current	10 AX
Power consumption	< 1 W
Ambient temperature range	0 ...35 °C
Protection type	IP 20

## 6 Setup and function

The device is intended for the activation of the following types of loads:

 230 V	230 V incandescent lamps
 230 V	230 V halogen lamps
	Low-voltage halogen lamps with conventional transformers
	Low-voltage halogen lamps with electronic transformers
	Fluorescent lamps

### 6.1 Features of function and equipment

- With operating mode switch (selector potentiometer) for operating modes "Switch" and "Timer".
- Switch-off delay adjustable in five steps between 30 and 300 seconds.
- Operation also possible via conventional push-buttons (2020 US, 2021/6 UK).
- Fixing via keyholes or enclosed spring claws

### 6.2 Possible combinations

	 6404 U
 6730-...	X

## 7 Installation and electrical connection



### Warning

#### Electric voltage!

Risk of death due to electrical voltage of 230 V during short-circuit in the low-voltage line.

- Low-voltage and 230 V lines must not be installed together in a flush-mounted socket!

### 7.1 Requirements for the electrician



### Warning

#### Electric voltage!

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:

- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
  1. Disconnect from power;
  2. Secure against being re-connected;
  3. Ensure there is no voltage;
  4. Connect to earth and short-circuit;
  5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the supply network type (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

## 7.2 Mounting



### Warning

#### Electric voltage!

Risk of death and fire due to electrical voltage of 230 V.

- Work on the 230V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

The flush-mounted insert must only be installed in flush-mounted wall boxes according to DIN 49073-1, Part 1, or suitable surface-mounted housings.

### Spring claw attachment

1. Push the insert into the box so that the spring claws are guided into the groove on both sides.

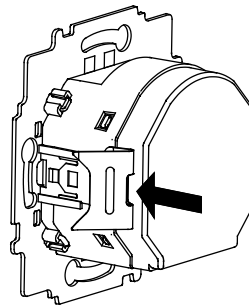


Fig. 2: Spring claw attachment

### Releasing the spring claws

The insert can be pulled out of the box once the spring claws have been released.

1. Push a screwdriver through the hole in the mounting plate.
2. Loosen the spring claws from the box by moving the screwdriver (1).
3. Press the spring claws in the box toward the rear (2).

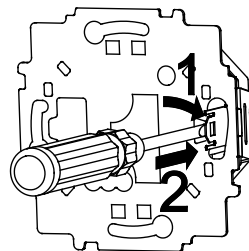


Fig. 3: Releasing the spring claws



7.3 Electrical connection

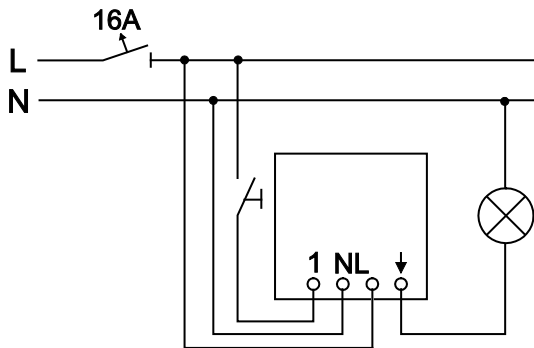


Fig. 4: 6404 U with extension unit push-button (e.g. 2020/4 US, 2021/6 U)

# Operating Instructions

## Busch-Dimmer®

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