

Universal dimmer
Order No. : 1034 00

Operating instructions

1 Safety instructions

Electrical equipment may only be installed and fitted by electrically skilled persons.

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

Danger of electric shock. Always disconnect before carrying out work on the device or load. At the same time, take into account all circuit breakers that supply dangerous voltage to the device or load.

Danger of electric shock. Device is not suitable for disconnection from supply voltage. The load is not electrically isolated from the mains even when the device is switched off.

Connect all devices and extensions to the same outer conductor. Devices can be destroyed when connected to different outer conductors.

Fire hazard. For operation with inductive transformers, each transformer must be fused on the primary side in accordance with the manufacturer's instructions. Only safety transformers according to EN 61558-2-6 may be used.

These instructions are an integral part of the product, and must remain with the end customer.

2 Device components

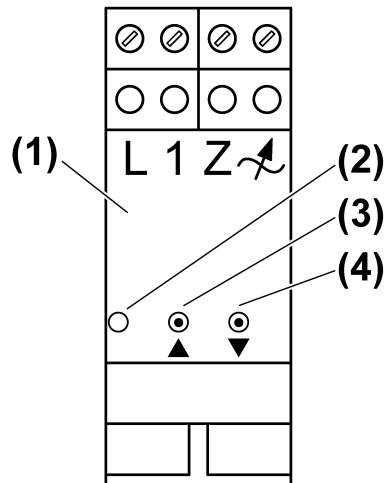


Figure 1: Device components

- (1) Dimmer
- (2) LED on/off: Dimmer on/off
- (3) Button ▲
- (4) Button ▼

3 Function

Intended use

- Switching and dimming of incandescent lamps, HV halogen lamps and dimmable inductive transformers or Tronic transformers with halogen lamps

- Suitable for mixed load up to the specified output (see chapter 6.1. Technical data)
- Installation in distribution boxes on DIN rail according to EN 60715
- i** No mixed-load of Tronic and inductive transformers.

Product characteristics

- Electronic short-circuit protection with permanent switch-off after 7 seconds at the latest
- Electronic over-temperature protection
- Connection of more than one extension is possible
- Connection for central extensions
- Switch-on via bulb-preserving soft start
- Power extension through power boosters (see power booster instructions)
- Automatic setting of the dimming principle suitable for the load

Load type	Electrical behaviour	Dimming principle
Incandescent lamps	ohmic	Phase cut-off
HV halogen lamps	ohmic	Phase cut-off
Tronic transformers with halogen lamps	capacitive	Phase cut-off
Dimmable inductive transformers with halogen lamps	inductive	Phase cut-on

- i** Flickering of the connected lamps due to undershoot of the specified minimum load or through centralised pulses from the power stations. These are not device faults.
- i** Brief flickering upon load detection of ohmic loads. No operation is possible during load detection.

4 Operation

Operation is performed using the two buttons on the dimmer, 2-wire extension insert (see chapter 6.3. Accessories) or installation button.

Extensions can be local or central extensions. With a local extension, one dimmer is operated, while with a central extension several dimmers can be operated simultaneously.

Operation on dimmer or local extension

The functions of the buttons on the dimmer and those of the local 2-wire extension insert are identical.

Dimmer	Extension insert, 2-wire
Button ▲	At top of button
Button ▼	At bottom of button
Buttons ▲ and ▼	Over entire surface of button

Switch light

- Press ▲ button or ▼ button for less than 0.5 seconds.
The light is switched on or off using the stored switch-on brightness.

Adjust the brightness

Light is switched on.

- Press the ▲ button for longer than 0.5 seconds.
The light gets brighter up to maximum brightness.
- Press the ▼ button for longer than 0.5 seconds.
Light gets darker to minimum brightness.

- i** Installation button: the light becomes brighter up to maximum brightness, remains there briefly and becomes dimmer down to minimum brightness, remains there briefly and becomes brighter again. This process repeats for as long as the push-button remains pressed.

Switching the light on with minimum brightness

Light is off.

- Press the ▼ button for longer than 0.5 seconds.

Save switch-on brightness

- i** In the state as supplied the maximum switch-on brightness is saved.

Light is set to the desired brightness value.

- Press both buttons ▲ and ▼ for longer than 3 seconds.

The switch-on brightness is saved. The dimmer indicates the saving of the brightness by a softstart of the lighting.

- i** It is not possible to save the switch-on brightness via an installation button.

Operation with central extensions

Pressing a central extension always affects all of the connected dimmers. An installation button as a central extension is not possible.

Switching light on centrally

- Press button at top for less than 0.5 seconds.

The light is switched on using the stored switch-on brightness.

- i** A light already switched on retains the set brightness.

Switching light off centrally

- Press button at bottom for less than 0.5 seconds.

The light is switched off.

Adjusting brightness centrally

Light is on.

- Press button at top for longer than 0.5 seconds.

The light gets brighter up to maximum brightness.

- i** Light that is switched off is switched on with minimum brightness and made brighter up to maximum brightness.

- Press button at bottom for longer than 0.5 seconds.

Light gets darker to minimum brightness.

- i** Light that is switched off is switched on with minimum brightness.

Switching the light on centrally with minimum brightness

Light is off.

- Press button at bottom for longer than 0.5 seconds.

Saving switch-on brightness centrally

Simultaneous saving of the switch-on brightnesses of all connected, switched-on dimmers. Dimmers that are switched off are switched on with minimum brightness and made brighter up to maximum brightness, without saving the switch-on brightness.

Light is set to the desired brightness values.

- Press button over entire surface for longer than 3 seconds.

The switch-on brightnesses are saved. The dimmers indicate the saving of the brightness by a softstart of the lighting.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.

Connecting and mounting the dimmer

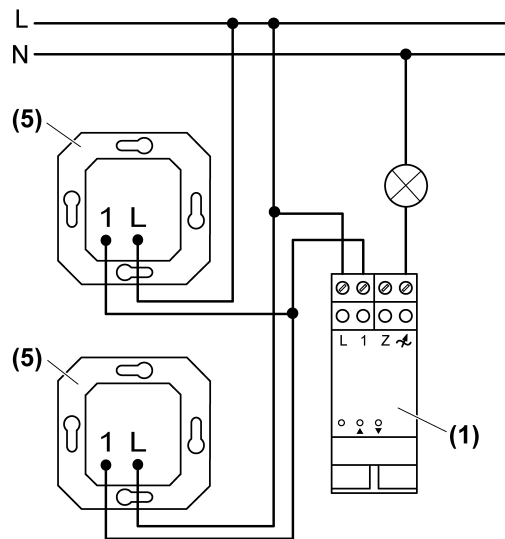


Figure 2: Connection diagram

- i** When operating multiple dimmers or power boosters in a sub-distribution, maintain a distance of 1 module, approx. 18 mm, between the devices in order to prevent overheating.

The terminals must be at the top.

- Mount dimmer (1) on DIN rail.
- Connect the dimmer (1) and local extensions (5) according to the connection diagram (Figure 2).

- i** Illuminated installation buttons may only be connected if they have a separate N terminal.

Connecting a local extension

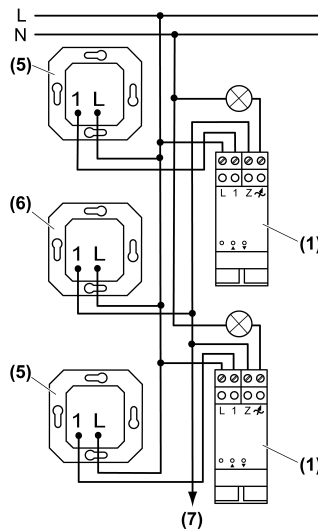


Figure 3: Connection diagram for central extension

- i** Only one 2-wire extension insert (see chapter 6.3. Accessories) can be used as a central extension (6).
- Connect the dimmer (1), local extensions (5) and central extension (6) according to the connection diagram (Figure 3).
- i** In the case of lighting systems with an output of more than 3500 W/VA, the installation must be divided across two circuit breakers with the same external conductor.
- If multiple miniature circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure release is guaranteed.
- Optionally connect central extension to additional dimmers or additional central extensions (7) (Figure 3).

6 Appendix

6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +45 °C
Power loss	5 W
Connected load at 45 °C	
i Power specifications including transformer power dissipation.	
i Operate inductive transformers with at least 85% nominal load.	
i For ohmic-inductive mixed load, maximum 50% proportion of ohmic load. Otherwise incorrect calibration of the dimmer may result.	
Incandescent lamps	50 ... 500 W
HV halogen lamps	50 ... 500 W
Tronic transformers	50 ... 500 W
Inductive transformers	50 ... 500 VA
ohmic-inductive	50 ... 500 VA
ohmic-capacitive	50 ... 500 W
capacitive-inductive	not permitted
Power reduction per 5°C in excess of 45°C	-15 %
Connection single stranded	1.5 ... 4 mm ²

Finely stranded with conductor sleeve	0.5 ... 2.5 mm ²
finely stranded without conductor sleeve	0.75 ... 4 mm ²
Number of extension units	unlimited
Total length of extension unit cable	max. 100 m
Total length power cable	max. 100 m
Fitting width	36 mm / 2 modules



The icons used to label the dimmer load shows the load type that can be connected to a dimmer and the electric behaviour of a load:
R = ohmic, L = inductive, C = capacitive

6.2 Troubleshooting

The dimmer switches the load off briefly and then on again.

Cause: short-circuit protection has tripped but now there is no longer a fault.

The dimmer switches the load off and cannot be switched on again.

Cause 1: short-circuit protection has tripped.

Eliminate short-circuit.

Switch dimmer back on again by pressing the push-button twice.

i Short-circuit protection is not based on a conventional fuse, no metallic separation of the operational current.

Cause 2: overheating protection has tripped.

Disconnect dimmer from mains, also switch associated off circuit breakers.

Let dimmer cool down for at least 15 minutes.

Check the installation situation.

Reduce the connected load.

Switch circuit breakers and dimmer on again.

6.3 Accessories

Auxiliary insert

Order No. 0333 00

Installation button, NO contact

6.4 Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

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