

- (5) Measuring points for voltage test
- (6) Release lever for plug terminal

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 operation up to the specified output (see chapter 6.1. Technical data)
- Installation in appliance box to DIN 49073

i No mixed operation of Tronic and inductive transformers.

Product characteristics

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

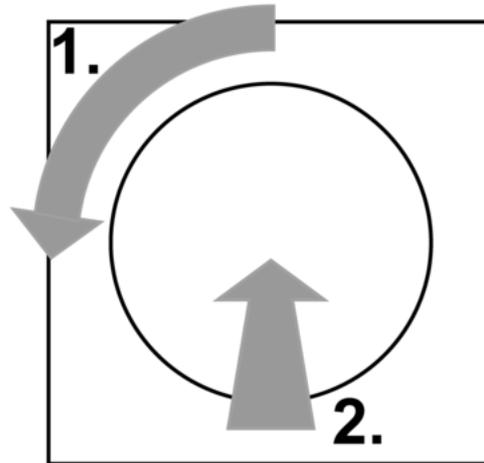
Load type	Electrical behaviour	Dimming principle
Incandescent lamps	ohmic	Phase cut-off
HV halogen incandescent lamps	ohmic	Phase cut-off
Tronic transformers with halogen lamps	capacitive	Phase cut-off
dimmable inductive transformers with halogen lamps	inductive	Phase cut-on

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

4 Operation

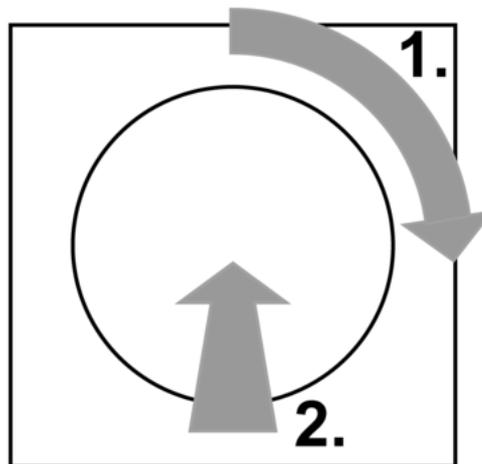
Switch light

- Press the control button.
Light is switched on again with the last brightness level set or switched off.

Switching the light on with minimum brightness

picture 2: Minimum brightness

- Turn control button a quarter turn in the anti-clockwise direction and press control button (picture 2).

Switching the light on with maximum brightness

picture 3: Maximum brightness

- Turn control button a quarter turn in the clockwise direction and press control button (picture 3).

Adjusting the brightness

Light is switched on.

- Turn the control button in the clockwise direction.
The light gets brighter.
- Turn the control button in the anti-clockwise direction.
Light gets darker.

i The dimmer detects the turning speed: with quick turning there is 360° between minimum and maximum brightness, with slow turning 720°.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection



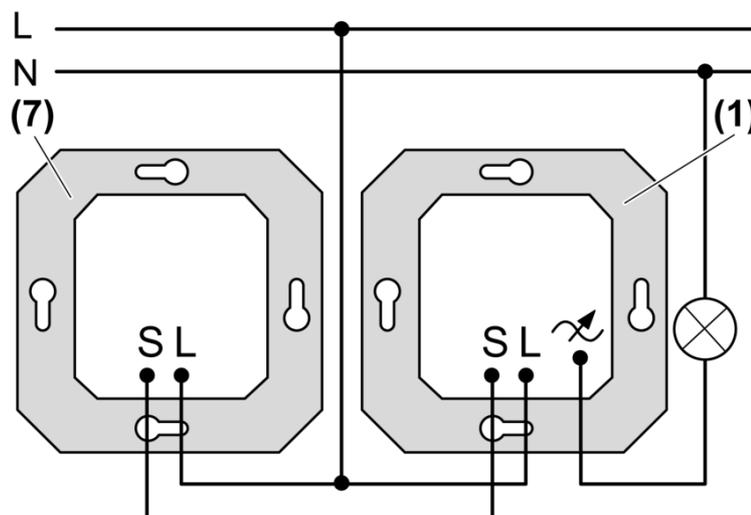
DANGER!

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.

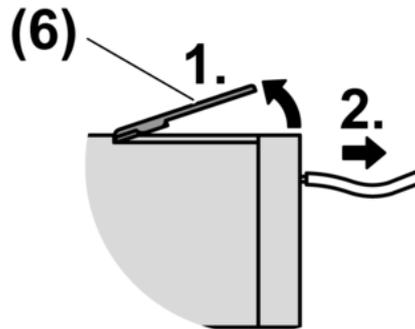
Connecting and mounting the dimmer



picture 4: Connection diagram for dimmer with extension

- Remove approx. 15 mm of insulation from the connecting cables.
- Connect dimmer (1) and optionally an extension (7) according the connection diagram (picture 4).
- 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.
- Install the device in the appliance box. Fit dimmer in appliance box, connection terminals must be at the bottom.
- Mount the frame and the central plate.
- Attach the control button.

Pull the connecting cable out of the push terminal.



picture 5: Releasing plug terminal

- Raise release lever (6) as described in illustration and pull out connecting wire (picture 5).

6 Appendix

6.1 Technical data

Universal rotary dimmer with extension input, Order-No. 2861 10

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +25 °C
Connected load at 25 °C	
 Power specifications including transformer power dissipation.	
 Operate inductive transformers with at least 85% nominal load.	
 For ohmic-inductive mixed load, maximum 50% proportion of ohmic load. Otherwise incorrect calibration of the dimmer may result.	
Incandescent lamps	50 ... 420 W
HV halogen lamps	50 ... 420 W
Tronic transformers	50 ... 420 W
Inductive transformers	50 ... 420 VA
Ohmic-inductive	50 ... 420 VA
ohmic-capacitive	50 ... 420 W
capacitive-inductive	not permitted
Power reduction	
per 5°C in excess of 25°C	-10 %
when installed in wooden or dry construction walls	-15 %
when installed in multiple combinations	-20 %
Power boosters	See power booster instructions
Connection	
Single stranded	1.0 ... 2.5 mm ²
Number of extension units	5
Total length of extension unit cable	max. 100 m
Total length power cable	max. 100 m



The symbols 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

Universal rotary dimmer with extension input, Order-No. 2834 ..

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +25 °C

Connected load at 25 °C

-  Power specifications including transformer power dissipation.
-  Operate inductive transformers with at least 85% nominal load.
-  For ohmic-inductive mixed load, maximum 50% proportion of ohmic load. Otherwise incorrect calibration of the dimmer may result.

Incandescent lamps	50 ... 420 W
HV halogen lamps	50 ... 420 W
Tronic transformers	50 ... 420 W
Inductive transformers	50 ... 420 VA
Ohmic-inductive	50 ... 420 VA
ohmic-capacitive	50 ... 420 W
capacitive-inductive	not permitted
Power reduction	
per 5°C in excess of 25°C	-10 %
when installed in wooden or dry construction walls	-15 %
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Power boosters	See power booster instructions
Connection	
Single stranded	1.0 ... 2.5 mm ²
Number of extension units	5
Total length of extension unit cable	max. 100 m
Total length power cable	max. 100 m



The symbols 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

Extension unit insert with centre plate for universal rotary dimmer, Order-No. 2862 10

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +25 °C
Connection	
Single stranded	1.0 ... 2.5 mm ²
Total length of extension unit cable	max. 100 m

Extension unit with centre plate for universal rotary dimmer, Order-No. 2835 ..

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	+5 ... +25 °C
Connection	
Single stranded	1.0 ... 2.5 mm ²
Total length of extension unit cable	max. 100 m

6.2 Troubleshooting

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

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

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

Cause 1: short-circuit protection has tripped.

Eliminate short-circuit.

-  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.

Reduce the connected load.

Check the installation situation.
Switch circuit breakers and dimmer on again.

6.3 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

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