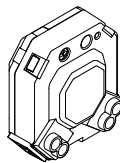


Universal LED dimmer module

Operating instructions



Art. no. MEG5300-0001

Accessories

Complete the universal LED dimmer module with:

- Mechanical retractive push-buttons in design series of free choice

For your safety

⚠️ ⚠️ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Safety standards, local wiring rules and regulations

Failure to follow these instructions will result in death or serious injury.

⚠️ ⚠️ DANGER

HAZARD OF ELECTRIC SHOCK

The outputs may carry an electrical current even when the device is switched off.

- Before working on the loads, always disconnect the device from the supply via the upstream miniature circuit breaker.

Failure to follow these instructions will result in death or serious injury.

Notice

HAZARD OF EQUIPMENT DAMAGE

- Never connect capacitive and inductive loads at the same time.
- The dimmer is designed for sinusoidal mains voltages.
- Only connect dimmable loads.
- Sockets must not be dimmed.
- If the X terminal is used for looping, the insert must be protected with a 10 A miniature circuit breaker.
- Ensure that the device is disconnected from its circuit during the insulation resistance test.

Failure to follow these instructions can damage the device.

Getting to know the dimmer module

The universal LED dimmer module (referred to below as **dimmer module**) is suitable for installation in a deep installation box. The dimmer module is controlled with mechanical push-buttons in parallel operation. Ohmic, inductive or capacitive loads can be switched or dimmed with it:



LED

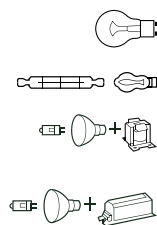
Dimmable LED lamps

Incandescent lamps (ohmic load)

230 V halogen lamps (ohmic load)

Low-voltage halogen lamps with dimmable wound transformer (inductive load)

Low-voltage halogen lamps with electronic transformer (capacitive load)

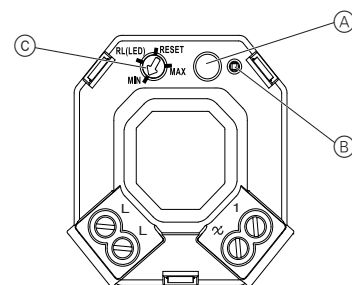


The dimmer module automatically recognises the connected load. It is overload-proof, short-circuit-proof, protected from overheating and it has a soft-start function.

The memory function allows the dimmer module to memorise the most recently set brightness value and retrieve it again.

You can set the dimming range and adjust the operating mode (from trailing edge phase to leading edge phase).

Connections, displays and operating elements



- (A) Programming push-button
- (B) Status LED
- (C) Function potentiometer

Mounting the dimmer module

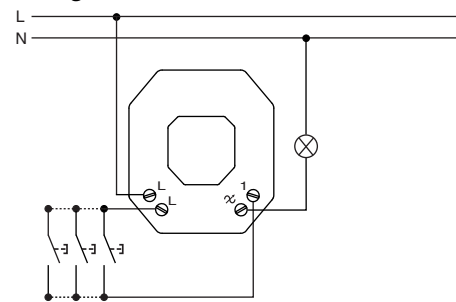
i Do not connect more than three dimmer modules to one cable with 16 A fuse protection.

i If you do not install the dimmer module in a single, standard flush mounting box, the maximum permissible load is reduced due to the restricted heat dissipation:

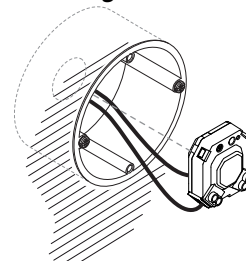
Load reduced by	When installed
25%	In cavity walls* Several installed together in combination*
30%	In 1-gang or 2-gang surface-mounted housing
50%	In 3-gang surface-mounted housing

* If more than one factor applies, add the load reductions together.

Wiring the dimmer module



Installing the dimmer module



Setting the dimmer module



DANGER

Risk of fatal injury from electric shock.

When setting the operating mode or operating the dimmer module by means of the installed programming push-button, pay attention to particular rules for live working. Only press the programming push-button with an insulated pin, for example an insulated screwdriver that meets the requirements of EN 60900.

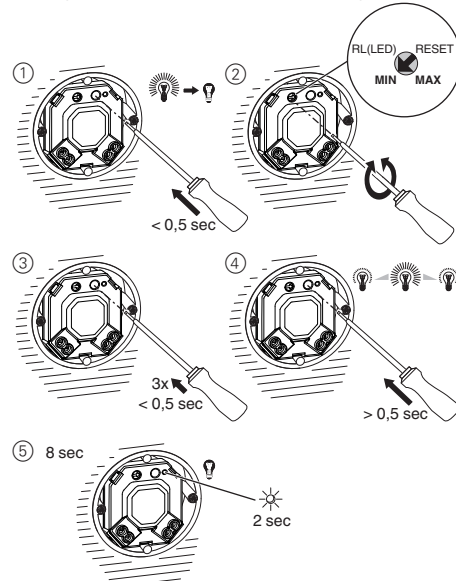
Setting the dimming range

The dimming range of the dimmer module can be adjusted.



Depending on the dimming range of the lamp, malfunctions may occur for values near the maximum and minimum brightness. (Refer to the chapter "What should I do if there is a problem?")

Setting the minimum and maximum brightness



The circuit breaker is switched on. (**Live working.**)

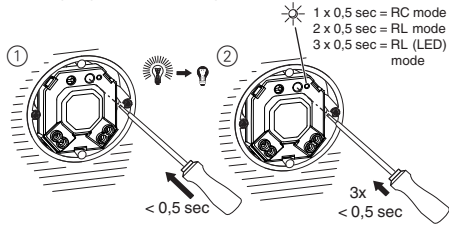
- ① Make sure that the connected load is turned off with the programming push-button.
- ② Set the function potentiometer to MIN or MAX.

- ③ Press the programming push-button shortly 3 times. The dimmer module is in programming mode. The status LED flashes according to the operating mode (see "Displaying the operating mode").
- ④ According to selection in step 2:
Set the minimum or maximum lamp brightness by holding down the programming push-button.
- ⑤ The new value will be automatically saved after 8 seconds if the programming push-button is not pressed again during this time.
 - The connected load is automatically switched off. The status LED lights up for 2 seconds.

Operating mode

The default setting of the dimmer module is the RC mode. The dimmer module automatically recognises inductive load (RL mode). However, not all lamps will work proper with the automatically recognised load. In this case you can switch the operating mode to RL LED.

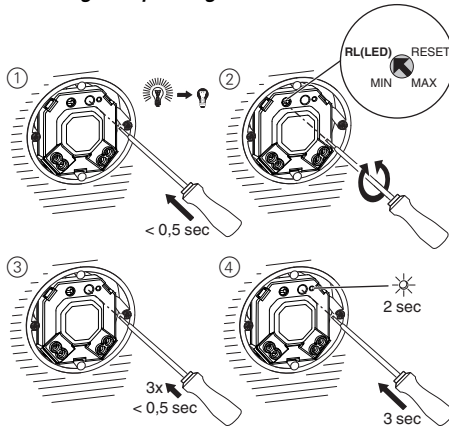
Displaying the operating mode



The circuit breaker is switched on. **(Live working!)**

- ① Make sure that the connected load is turned off with the programming push-button.
- ② Press the programming push-button shortly 3 times. The status LED displays the current operating mode. It flashes briefly 1-3 times depending on the operating mode.

Switching the operating mode to RL LED mode



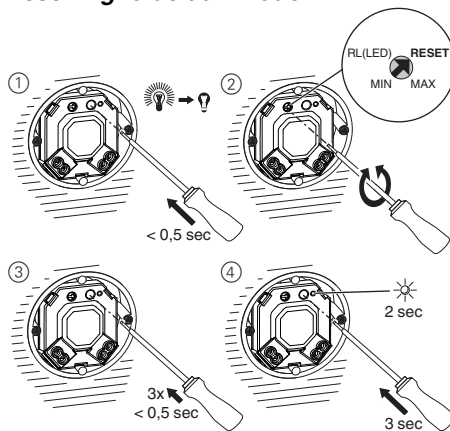
The circuit breaker is switched on. **(Live working!)**

- ① Make sure that the connected load is turned off with the programming push-button.
- ② Set the function potentiometer to RL(LED).
- ③ Press the programming push-button shortly 3 times. The dimmer module is in programming mode. The status LED flashes according to the operating mode (see "Displaying the operating mode").
- ④ Press the programming push-button for 3 seconds. The status LED lights up for 2 seconds.

The operating mode is switched to "leading edge phase for LED lamps" (RL LED mode).

i In the operating mode "leading edge phase for LED lamps" (RL LED mode), LED lamps can only be connected at up to 10% of the maximum permissible dimmer load.

Resetting to default mode



The circuit breaker is switched on. **(Live working!)**

- ① Make sure that the connected load is turned off with the programming push-button.
- ② Set the function potentiometer to RESET.
- ③ Press the programming push-button shortly 3 times. The dimmer module is in programming mode. The status LED flashes according to the operating mode (see "Displaying the operating mode").
- ④ Press the programming push-button for 3 seconds. The status LED lights up for 2 seconds.

The operating mode is switched to "trailing edge phase" (RC mode) and the minimum/maximum brightness value is reset.

Connecting the mechanical push-button

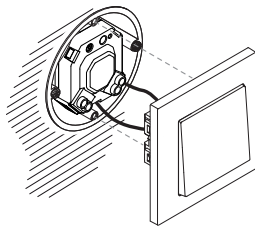
⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK

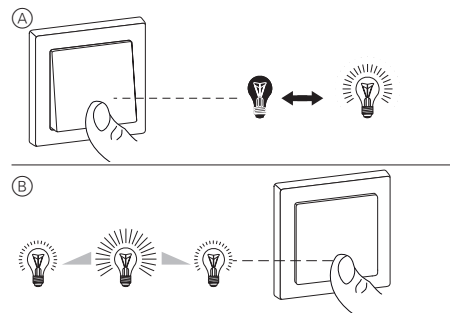
The outputs may carry an electrical current even when the device is switched off.

- Before working on the loads, always disconnect the device from the supply via the upstream miniature circuit breaker.

Failure to follow these instructions will result in death or serious injury.



Operating the dimmer module



- (A) Short press: switching on or off
- (B) Long press: dimming up or down

What should I do if there is a problem?

The dimmer dims down regularly during operation and cannot be dimmed up again.

- Allow the dimmer to cool down and reduce the connected load.

The load cannot be switched back on.

- Allow the dimmer to cool down and reduce the connected load.
- Rectify any possible short circuits.
- Renew defective loads.

The load is dimmed to the minimum brightness.

- The circuit is overloaded. -> Reduce load.
- The circuit falls short of the minimum load. -> Increase load.
- Dimming range is incorrect. -> Reduce maximum brightness value.

The load flickers at minimum brightness.

The circuit falls short of the minimum possible brightness value.

- Increase minimum brightness value (set dimming range).

The load flickers continuously.

Incorrect operating mode set.

- Switch operating mode to "leading edge phase for LED lamps" (RL LED mode).
- Alternatively, reset operating mode to default.

The load can only be dimmed slightly.

- Set dimming range.
- Switch operating mode to "leading edge phase for LED lamps" (RL LED mode).
- Alternatively, reset operating mode to default and set dimming range again.

Technical data

Nominal voltage:	AC 230 V ~, 50 Hz
Switching capacity:	
LED lamps (RC mode):	4-100 VA
LED lamps (RL LED mode):	4-20 VA
Incandescent lamps:	5-200 W
230 V halogen lamps:	5-150 W
LV halogen lamps with dimmable wound transformer:	5-200 VA
LV halogen lamps with electronic transformer:	5-200 VA
Neutral conductor:	not required
Connecting terminals:	screw terminals for max. 2.5 mm ²
Extension connection:	mechanical push-buttons
Total cable sections:	max. 20 m for 3-wire NYM cable
Fuse protection:	16 A circuit breaker
Dimensions (HxWxD):	44.5 x 39.5 x 20 mm
Properties:	<ul style="list-style-type: none"> • Short-circuit-proof • Overload-proof • Soft start • Resistant to overheating • Automatic load detection



Dispose of the device separately from household waste at an official collection point. Professional recycling protects people and the environment against potential negative effects.

Merten GmbH

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se.com/contact

Schneider
Electric