

GB INSTRUCTION MANUAL TRIAC DIMMER [R,L] – 879 410 LED

Technical Features

Supply voltage	230 V, 50 Hz
Power consumption	3 VA
Type of lamps	dimmable LED lamps
Loads	4 - 1200 W for leading edge
Max. number of pushbuttons	unlimited (no illuminated pushbuttons)
Dimensions	87,5 x 87,5 x 60 mm
Weight	400 g
Working temperature	0 ° ... +40 °C
Storage temperature	-30 ° ... +70 °C
Type of protection	IP20 nach DIN EN 60529
According to the norm	DIN EN 60669-2-1



Safety instructions

⚠ CAUTION! DANGER OF LIFE / RISK OF FIRE AND ELECTRIC SHOCK!

- ▶ Installation and assembly of electrical equipment must be carried out only by professional electrician!
- ▶ Connect to supply voltage/frequency as stated on the product!
- ▶ Disconnect device from power supply for wiring and installation purposes! Check power supply is disconnected!
- ▶ Defective devices have to be put out of service immediately!

- Warranty void if housing opened by unauthorized person!
- Electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits!
- Installation and assembly of electrical equipment must be in accordance with local building and electrical codes!

Important note
 ■ When calculating the max. load please take into account power dissipation of transformers: For conventional transformers ~20% power dissipation / For electronic transformers ~2% power dissipation.

- For all transformers and lamps, please take into account the specifications of the manufacturer!

Intended use

- The device fits for the particular use of the following tasks: dimmer for the previously defined lamps.
- Operate the device in a closed room only! The regulation of the brightness operates as described in the instruction manual.
- The device is equipped with a overheat protection and short-circuit protection.

Description / Installation

Description / Intended use

- TRIAC dimmer for DIN-rail mounting
- Use with dimmable LED lamps
- For leading edge
- The device is equipped with a overheat protection and short-circuit protection.
- Unlimited number of pushbuttons (no illuminated pushbuttons), potentiometer (internal or external) or 0 - 10V signal.
- Seven basic functions (MEM, NO MEM, MEM PLUS, 0 - 10V, SLAVE, int. & ext. potentiometer).
- Check the technical specification of the lamps! For all transformers and lamps, please take into account the specifications of the manufacturer!

Installation

⚠ CAUTION! You must select the correct type of connected load in order to avoid damages of the dimmer or the lamps!

1. Set an operating mode with the lateral rotary knob.
2. Disconnect device from power supply for wiring and installation purposes! Check power supply is disconnected!
3. Mount the dimmer on the DIN-rail of the electric cabinet. Avoid placing it next to other sources of heat.
4. Carry out the wiring according to the selected operating mode.
5. Reconnect the power supply. The dimmer is ready for operation.

Anti-panic function

If you open the contact between the two terminals, the dimming function overloads and the installed load/loads illuminate with maximum power. You need this function especially in emergency situations. With removing the bridge, the dimmer goes to maximum load and does not react to standard commands. If you do not use this function, you have to keep the bridge between the terminals closed. The dimmer works in the standard mode then.

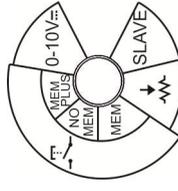


Operation

Operation / functionality

The dimming can be performed with different controls, depending on the configuration selected:

- SLAVE
- MEM
- NO MEM
- MEM PLUS
- 0-10V
- Potentiometer (intern or extern)
- Master-Slave Mode
- Pushbutton operation – Memory function
- Pushbutton operation – No memory function
- Pushbutton operation – Memory function with additional safety function in case of power failure
- Signal 0 - 10V



Protection against over heat

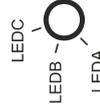
Protection against over heat switches off the lamps.

Note: If the dimmer is switched off due to over heat protection, please try to:

- Reduce the output load.
- Install the dimmer inside an electric cabinet with forced ventilation or without other heat sources, or place it in the lower part of the cabinet, where the accumulation of heat may be lower.

Selector switch for LED lamp type

The device has a selector switch with 3 modes of operation: LEDA, LEDB, LEDC. Change the selected mode if you notice that the LED lamps blink or change light level suddenly at some point of the dimming. Select the mode that fits to the characteristics of your LED lamp best.



Operating modes

Operation with pushbutton

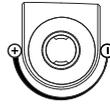
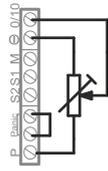
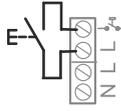
- Pressing the pushbutton shortly turns the load on and off.
- Pressing the pushbutton for a long time carries-out a cyclical dimming (as long as the pushbutton is pressed).
- In this operation mode the internal potentiometer defines the lower dimming limit (pushbutton MEM, NO MEM or MEM PLUS). It avoids flickerings or undesired switching-offs.

Operation with external potentiometer (galvanically isolated)

- It is possible to control the load with a 10 kΩ potentiometer.
- At the minimum level of the potentiometer the load stays turned off.
- By turning the potentiometer, the load increases.
- It is necessary to set the built-in potentiometer at minimum.

Operation with internal potentiometer

- It is possible to control the load with the internal potentiometer of the dimmer.
- By setting the potentiometer to the minimum value, the use of an external potentiometer is possible.
- If you put the potentiometer to any value higher than the minimum value, the potentiometer will only consider this value. It will ignore the signals of the external potentiometer.



Operating modes

Operation with signal 0 - 10V (galvanically isolated)

- 0V correspond to a switched off status.
- 10V correspond to the maximum illumination of the dimmer.
- You can use any external, isolated or not isolated voltage source with 0 - 10 V (SPS, control panel etc.).



In this mode of operation the internal potentiometer defines the minimum dimming level. It avoids flickerings or undesired switching-offs.

Master-Slave-configuration (galvanically isolated)

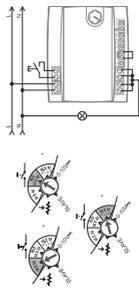
This configuration is used, if the maximum load that is supported by one dimmer is exceeded. With this configuration it is possible to distribute the load across multiple dimmers and extend the load. For this it is necessary to spread the load into several partial loads with each dimmer controlling its maximum load. It is also recommended to use slaves in applications where different loads have to be controlled. In this mode of operation the internal potentiometer defines the minimum dimming level. It avoids flickerings or undesired switching-offs.



Example 1

Operation with pushbutton

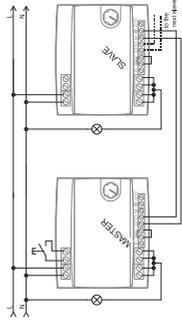
- Place the selector switch in the desired working mode:
- MEM to switch on at the same level as turned off.
 - NO MEM to switch on with maximum power.
 - MEM PLUS to switch on at the same level as turned off and to rebuild the operating status (turn on/ off or level of intensity) after power failure.



Example 2

Operation with pushbutton, extended by slaves

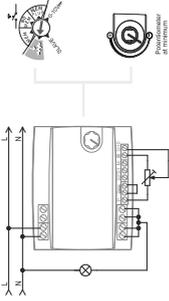
- The MASTER dimmer must be set according to example 1. To configure a dimmer as SLAVE, the selector switch must be in SLAVE mode.
- It is possible to add an unlimited number of slaves.
- There can be a time delay in the response if you use a large number of slaves.
- The heat development in the installation box has to be monitored, especially when using a larger number of dimmers.
- It is recommended to realize a spacing between each dimmer (1 module spacing).



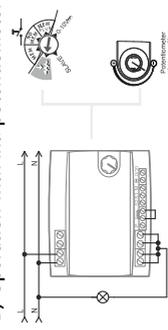
Example 3

Operation with potentiometer

- The selector switch must be in the correct position for the potentiometer.
- The brightness level depends on the position of the potentiometer.
- Turning the potentiometer clockwise will increase the light intensity.



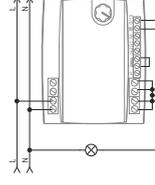
B) Operation with int. potentiometer



Example 4

Operation with 0 - 10V signal

- The selector switch must be in the correct position 0 - 10V.
- Level 0V corresponds to the status switched off.
- The light intensity increases in the same amount as the voltage does to 10V.



Example 5

3-phase-installation controlled by potentiometer and increased by slaves

- Do the installation according to the wiring diagram.
- The MASTER dimmer must be configured as in example 3A. The slaves must be in position SLAVE.
- It is recommended to distribute the loads between the three phases.
- In case of three-phase line without electrical neuter, please contact us.

