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Eltako ELECTRONICS

Universal dimmer switch EUD12Z-UC for central control

CE

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

Universal dimmer switch. Power MOSFET 400 W. Automatic lamp detection. Standby loss 0.1 watt only. With adjustable minimum brightness and dimming speed. With switching operation for children's rooms and snooze function.

Modular device for
DIN EN 60715 TH35 rail mounting.
1 module = 18 mm wide, 58 mm deep.

Universal dimmer switch for lamps up to 400 watt, dependent on the ventilation conditions. Dimmable energy saving lamps and dimmable 230 V LED lamps are additionally dependent on the lamps electronics.

Zero passage switching with soft start and soft OFF to protect contact and lamps.
Up to 3600 W with capacity enhancers LUD12-230 V at the terminals X1 and X2.

Local universal control voltage input from 8 to 230 V UC. In addition universal control voltage inputs 8 to 230 V UC central ON and central OFF. The control inputs are electrically isolated from the supply voltage and switching voltage 230 V.

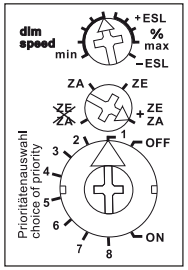
Short-time control commands switch on/off, permanent control varies the brightness to the maximum level.
An interruption of control changes the direction of dimming.
The setting of the brightness level is stored after switching off.

Glow lamp current 5 mA starting at 110 V (not for priorities 4 and 8).

Automatic electronic overload protection and over-temperature switch-off.

The LED below the upper rotary switch on the front indicates a local or central control. During local control it starts blinking after 15 seconds if a pushbutton is inhibited.

Function rotary switches



Automatic mode allows dimming of all lamp types.
In automatic mode, the dimming speed can be set in five steps with the upper rotary switch. In **ESL** mode the minimum brightness can be set in four steps.

+ESL is a comfort setting for energy saving lamps which by design have to be switched on with an increased voltage, so they will also switch on again safely in cold condition when dimmed down. -ESL is a comfort setting for energy saving lamps which by design cannot be switched on again when dimmed down. Therefore memory is switched off in this position. In positions +ESL and –ESL no inductive (wound) transformers should be used. In addition the maximum number of dimmable energy saving lamps may be lower by design than in automatic mode.

With the middle rotary switch this universal dimmer switch can be operated completely or partially as central control device:

ZE+ZA = central ON and central OFF
ZE = central ON only
ZA = central OFF only
~~ZE+ZA~~ = no central control

With the lower rotary switch several priorities can be adjusted. These determin which other control inputs are blokked as long as onother control input is excited permanently.

Furthermore, here it will be decided if the switch position should be kept or not after a power failure: In positions 1 to 4 of the rotary switch the switch position will be kept unchanged, in positions 5 to 8 it will be switched off. If central commands are activated they will be realised immediately hereafter.

OFF: Permanent OFF.

1 and 5: No priority. Also if central control inputs are excited permanently, it is possible to operate the device by pushing a local pushbutton. The last central command is executed. This is the setting ex works.

2 and 6: Priority for central ON and OFF. Local pushbuttons are temporarily inhibited. However, continuous excitation central OFF has priority over continuous excitation central ON.

3 and 7: Priority for central ON and OFF. Local pushbuttons are temporarily inhibited. However, continuous excitation central ON has priority over continuous excitation central OFF.

4 and 8: Priority for permanently excited local pushbutton. In the meantime central commands are not executed. In these positions a glow lamp current is not permitted.

ON: Permanent ON.

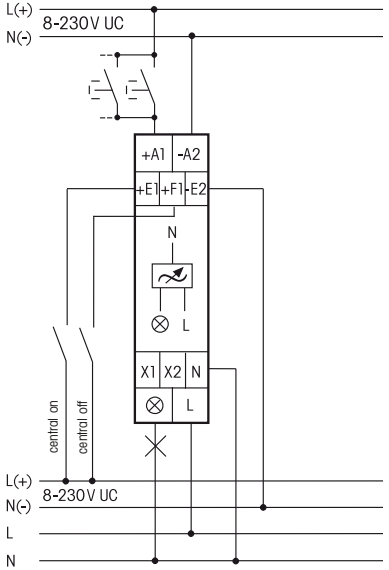
Switching operation for children's rooms: If the light is switched on by holding down the pushbutton, it starts at the lowest brightness level after approx. 1 second and dims up slowly as long as the pushbutton is held down. The last saved brightness level is not modified.

Snooze function: With a double impulse the lighting is dimmed down from the current dimming position and finally switched off. The current dimming position determines the dimming time (max.= 60 minutes), which can be reduced as required. It can be switched off at any time by short-time control commands during the lighting is dimmed down. Holding down the pushbutton during the dimming down process dims up and stops the snooze function.

Mixing of L loads (inductive loads, e.g. wound transformers) and C loads (capacitive loads, e.g. electronic transformers) is not permitted. R loads (ohmic loads, e.g. 230 V incandescent-lamps and halogen lamps) may be added anytime.

Mixing of L loads and C loads is possible with dimmer switches **EUD12Z** and **EUD12D** in connection with capacity enhancer **LUD12**.

Typical connections



Tecnical data

Incandescent and halogen lamps 230 V (R)	up to 400 W [6]
Inductive transformers (L)	up to 400 W [2)3)6]
Electronic transformers (C)	up to 400 W [2)3)6]
Dimmable energy saving lamps ESL	up to 400 W [5)6]
Dimmable LEDs	up to 400 W [5)6]
Max./min. temperature at mounting location	+50°C/-20°C [4]
Standby loss (activ power)	0.1 W

1) For lamps with a maximum of 150 W.

2) Per dimmer it is only allowed to use max. 2 inductive (wound) transformers of the same type, furthermore no-load operation on the secondary part is not permitted. Possibly the dimmer switch will be destroyed! No load-switching-off on the secondary part is allowed. The parallel operation of inductive (wound) and capacitive (electronic) transformers is not allowed!

3) **When calculating the load 20% loss has to be considered for inductive (wound) transformers and 5% loss in addition to the lamp load.**

4) Affects the maximum switching power.

5) Usually applies for dimmable energy saving lamps and dimmable 230 V LEDs. Due to differences in the lamps electronics, there may be limited dimming range, switch on and off problems dependent on the manufacturer and a restriction on the maximum number of lamps; especially if the connected load is very low (for 5 W-LEDs). The comfort settings EC1 and EC2 optimize the dimming range which, however, gives only a maximum power up to 100 W. In these comfort settings no inductive (wound) transformers should be dimmed.

6) With a load of more than 200 W, a ventilation distance of ½ module to adjacent devices must be maintained.

The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex works.

Must be kept for later use!
We recommend the housing for operating instructions GBA12.

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