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21 100 904 - **3**

Eltako ELECTRONICS

Universal dimmer switch EUD12Z-UC for central control

CE

valid for devices from production week 16/10
(see bottom side of housing)

Power MOSFET 400 W.
Standby loss 0.1 watt only.

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

Universal dimmer switch for R, L and C loads up to 400 watt, depending on ventilation conditions. Dimmable energy saving lamps ESL up to 100 watt. Automatic detection of load R+L or R+C. ESL is manually settable.

Up to 3400 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.

Zero passage switching with soft start and soft OFF to protect contact and lamps.

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).

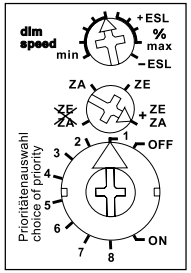
Automatic electronic overload protection and over-temperature switch-off.

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.

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.

Function rotary switches



With the top rotary switch either the dimming speed is adjustable in five steps or the minimum brightness on energy saving lamps ESL is adjustable in four steps.

The settings +ESL and -ESL consider the special conditions regarding dimmable energy saving lamps: The starting operation is optimized and adapted to the dimming curve. In these settings the special switching operation for children's rooms is not possible and no wound (inductive) transformer must be dimmed. In position -ESL Memory is switched off. This can be of advantage for energy saving lamps because cold energy saving lamps require a higher minimum brightness as it will possibly be stored in Memory for warmer energy saving lamps.

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 blocked 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.

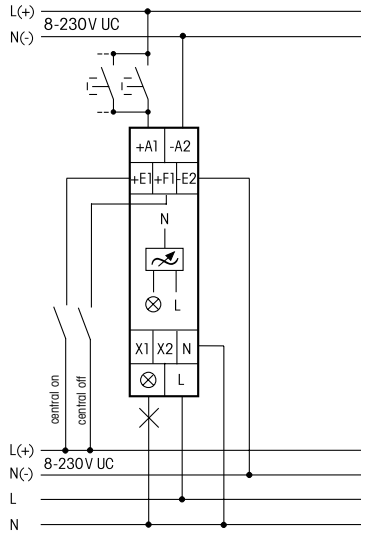
4 and 8: Priority for permanently excited local pushbutton. In the meantime central commands are not executed. In these positions a glow lamp current is not permitted.

ON: Permanent ON.

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 [1]
Inductive transformers (L)	up to 400 W [1)2)3)]
Electronic transformers (C)	up to 400 W [1)3)]
Dimmable energy saving lamps ESL [5]	up to 100 W
Max./min. temperature at mounting location	+50°C/-20°C [4]
Standby loss (activ power)	0.1 W

1) At a load of more than 200 W ventilation clearance of 1/2 module to adjacent devices must be maintained.

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. The dimmer might be destroyed. Therefore do not permit load breaking on the secondary part.

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

4) Affects the max. switching capacity.

5) In the settings ESL no wound (inductive) transformer must be dimmed.

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.

Important Note!

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

10/2010 Subject to change without notice.