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Eltako ELECTRONICS

Universal dimmer switch with rotary knob

EUD12DK/800W-UC

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 with rotary knob, Power MOSFET up to 800W. Automatic lamp detection. Standby loss 0.2 watt only. With adjustable minimum and maximum brightness.

Modular device for DIN EN 60715 TH35 rail mounting. 2 modules = 36mm wide, 58mm deep.

Universal dimmer switch for lamps up to 800W, depending on ventilation conditions, dimmable energy saving lamps (ESL) and dimmable 230V LED lamps are also dependent on the lamp electronics.

Up to 3600W with capacity enhancers LUD12-230V at the terminals X1 and X2.

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

Universal control voltage input 8 to 230V UC, electrically isolated from the 230V supply voltage and switching voltage.

No minimum load required.

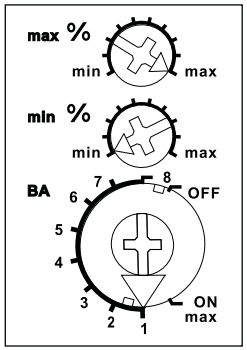
PWM controll with 10-24V DC over ther terminals PWM and GND.

The setting of the brightness level is stored after switching off.

In case of a power failure the switching position and the brightness level are stored. If applicable the dimmer will be switched on at the stored brightness level after the supply voltage is recovered.

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

Function rotary switch



Maximum brightness (fully dimmed up) is adjustable **using the upper % rotary switch.**

Use the middle % rotary switch to set the minimum brightness (fully dimmed down).

The lower rotary switch sets the operating mode:

ON: Permanent ON at maximum brightness.

Pos. 1 is an AUTO position and allows the dimming of all lamp types. Switch on and off using pushbutton on the device and/or pushbutton connected to +A1/-A2. Dimming via rotary knob.

Pos. 2 is a comfort setting for LED lamps which cannot be dimmed down far enough on AUTO (phase cut-off) due to the design and must therefore be forced at phase control. Switch on and off using pushbutton on the device and/or pushbutton connected to +A1/-A2. Dimming via rotary knob.

Pos. 3 is a comfort setting for energy saving lamps which must be switched on at a higher voltage so that they can be safely switched on cold when they are dimmed down. Switch on and off using pushbutton on the device and/or pushbutton connected to +A1/-A2. Dimming via rotary knob.

Pos. 4 is an AUTO position and allows the dimming of all lamp types. Switch on and off using switch connected to +A1/-A2. Dimming via rotary knob.

Pos. 5 is a comfort setting for LED lamps which cannot be dimmed down far enough on AUTO (phase cut-off) due to the design and must therefore be forced at phase control. Switch on and off using switch connected to +A1/-A2. Dimming via rotary knob.

Pos. 6 is a comfort setting for energy saving lamps which must be switched on at a higher voltage so that they can be safely switched on cold when they are dimmed down. Switch on and off using switch connected to +A1/-A2. Dimming via rotary knob.

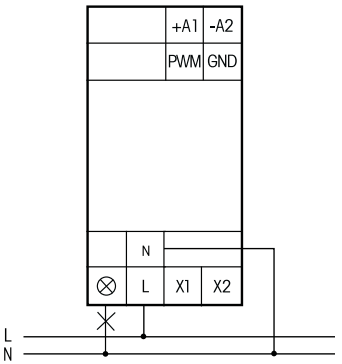
Pos. 7 is an AUTO position and allows the dimming of all lamp types. Switch on and off and dimming with PWM activation.

Pos. 8 is a comfort setting for LED lamps which cannot be dimmed down far enough on AUTO (phase cut-off) due to the design and must therefore be forced at phase control. Switch on and off and dimming with PWM activation.

OFF: Permanent OFF.

The LED under the upper rotary switch lights up when the lamp is switched on.

Typical connection



Technical data

Incandescent and halogen lamps [1] 230V (R)	up to 800W [6]
Inductive transformers (L)	up to 800W [2)3)6)]
Electronic transformers (C)	up to 800W [2)3)6)]
Dimmable energy saving lamps ESL	up to 800W [5)6)]
Dimmable 230V LEDs	up to 800W [5)6)]
Max./min. temperature at mounting location	+50°C/-20°C [4]
Standby loss (activ power)	0.2W

1) Applies to lamps of max. 150W.

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. Operation in parallel of inductive (wound) and capacative (electronic) transformers is not permitted!

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) Usually applies for dimmable energy saving lamps and dimmable 230V LED lamps. 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 5W-LEDs). The comfort positions optimize the dimming range, which, however, only gives a maximum power up to 100W. No inductive (wound) transformers may be dimmed in these comfort positions.

6) At a load of more than 400W ventilation clearance of ½ module to adjacent devices must be maintained.

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

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