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02-89/2016 Rev.: 0

DIM-15

Controlled dimmer

Characteristics

- designated for dimming of:
 - R - bulbs, halogen lamps
 - L - low-voltage el. bulbs 12/24 V wound transformers
 - C - low-voltage el. bulbs 12/24 V electronic transformers
 - ESL - dimmable compact fluorescent lamps
 - LED - LED lamps
- enables gradual setting of luminance by push-button (non-detent) or parallel buttons
- returns to last state upon re-energization
- type of light source is set by switch-over on the front panel of device
- min. luminance, set by potentiometer on the front panel, eliminates flashing of light sources
- supply voltage 230 V AC
- output status is indicated by red LED:
 - shines when output is active (with arbitrary luminance intensity)
 - flashes while heating overload, at the same time output is disconnected
- 1-MODULE version, DIN rail mounting, saddle terminals

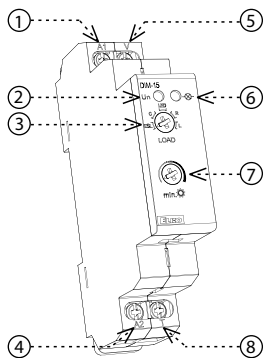
Mounting recommendation:

- on each side of device keep a gap with width 0.5 of module (cca 9 mm) for better device cooling

Warning:

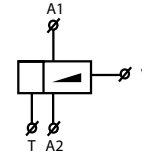
- it is not recommended to connect light sources with different types and brands, to one dimmer

Description

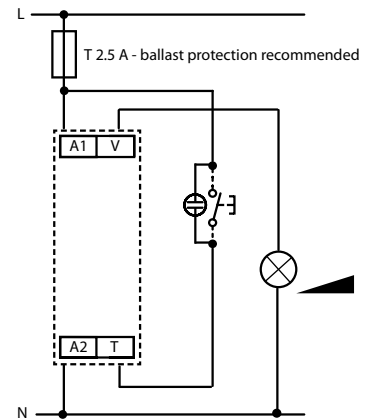


- Supply voltage L
- Supply voltage indication
- Light source type selection:
 - ESL - dimmable compact fluorescent lamps
 - C - low-voltage el. bulbs 12/24 V electronic transformers
 - LED - LED lamps
 - R - bulbs, halogen lamps
 - L - low-voltage el. bulbs 12/24 V wound transformers
- Supply voltage N
- Output
- Output indication
- Minimal luminance setting
- Controlling input

Symbol



Connection



Product loadability

| a | b | c | d | e | f | |
|---|---|---|--------------|---|----|-----|
| | | | | | | |
| R | L | C | 230V AC x | x | xx | xxx |
| ● | ● | ● | ● | ● | ● | ● |

- a) lamp, halogen light
 b) low-voltage el. bulbs 12/24V wound transformers
 c) low-voltage el. bulbs 12/24V electronic transformers
 d) LED bulbs
 e) saving fluorescent lamps
 f) switching management
 x - dimmable
 xx - incline edge
 xxx - descending edge

DIM-15

| | |
|---------------------------|------------------|
| Supply terminals: | A1 - A2 |
| Supply voltage: | AC 230 V / 50 Hz |
| Supply voltage tolerance: | -15 %; +10 % |
| Apparent power: | max. 1.5 VA |
| Loss power: | max. 0.7 W |
| Supply indication: | green LED |

Controlling

| | |
|---|---|
| Control terminals: | A1 - T |
| Control voltage: | AC 230 V |
| Control input power: | AC 0.3 - 0.6 VA |
| Control impulse lenght: | min. 80 ms / max. unlimited |
| Glow tubes connection: | yes |
| Max. amount of glow lamps connected to controlling input: | max. 15 pcs (measured with glow lamp 0.68 mA / 230 V AC) |

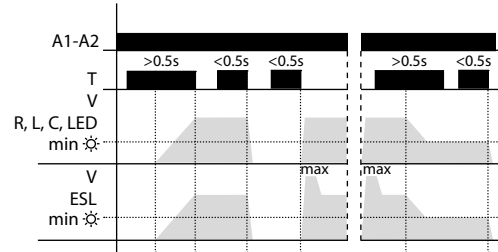
Output

| | |
|---------------------------|---------------------------------|
| Contactless: | 2x MOSFET |
| Load: | 300 W (at $\cos \varphi = 1$)* |
| Output status indication: | red LED |

Other data

| | |
|-------------------------------------|---|
| Operating temperature: | -20 °C to +35 °C (-4 °F to 95 °F) |
| Storage temperature: | -20 °C to +60 °C (-4 °F to 140 °F) |
| Operating position: | any |
| Mounting: | DIN rail EN 60715 |
| Protection degre: | IP40 from front panel, IP10 terminals |
| Overvoltage category: | III. |
| Pollution degree: | 2 |
| Max. cable size (mm ²): | max. 2x 2.5, max. 1x 4 / with sleeve max. 1x 2.5, max. 2x 1.5 (AWG 12) |
| Dimensions: | 90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5") |
| Weight: | 57 g (1.98 oz.) |
| Standards: | EN 60669-2-1, EN 61010-1 |

* Due to a large number of light source types, the maximum load depends on the internal construction of dimmable light sources and their power factor $\cos \varphi$. The power factor of dimmable LEDs and ESL bulbs ranges from $\cos \varphi = 0.95$ to 0.4. An approximate value of maximum load may be obtained by multiplying the load capacity of the dimmer by the power factor of the connected light source.



Controlling:

- short button press (< 0.5 s) turns the light off or on
- long press (> 0.5 s) enables slight regulation of light intensity
- setting of minimal luminance is possible only during decreasing of luminance by long button press
- setting of minimal luminance by saving fluorescent lamps serves for harmonizing of lowest light intensity prior its unprompted switching off

Luminance setting:

- R, L, C, LED - if the light is turned off, short press (< 0.5 s) switches the light onto last set luminance level
- ESL - if the light is turned off, short press increases the luminance onto maximal level (saving fluorescent lamps fires up) and then luminance decreases onto set level.

Notice:

- it is not possible to dim saving fluorescent lamps without marking: dimmable
- an incorrect setting of light source has effect only on dimming range, it means neither dimmer or load get damaged
- the maximum number of dimmable light sources depends on their internal construction
- actual list of tested light sources is constantly refreshing, further information on www.elkoep.com

Warning

Device is constructed for connection in 1-phase main AC and must be installed according to norms valid in the state of application. Connection must be realized according to the details in this instruction manual. Installation, connection, setting and operating should be made by qualified electrician staff only, who has learnt these instruction and functions of the device. This device contains protection against overvoltage peaks and disturbances in supply. For correct function of the protection of this device there must be a suitable protections of higher degree (A, B, C) installed in front of them. Before installation the main switch must be in position "OFF" and the device should be de-energized. Don't install the device to sources of excessive electro-magnetic interference. By correct installation ensure ideal air circulation so in case of permanent operation and higher ambient temperature the maximal operating temperature of the device is not exceeded. For installation and setting use screw-driver cca 2 mm. The device is fully-electronic - installation should be carried out according to this fact. Non-problematic function depends also on the way of transportation, storing and handling. In case of any signs of destruction, deformation, non-function or missing part, don't install and claim at your seller. After the product exceeds lifetime, it should be removed and placed in protected dump. Important instructions and cautions - dimmer is not designated for controlling of motors or other inductive loads. HDO warning signals and other similar signals spreaded by main, can cause interruption of dimmer. Interruption is active only during transmitting of these signals.