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Made in Czech Republic  
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## LIC-2

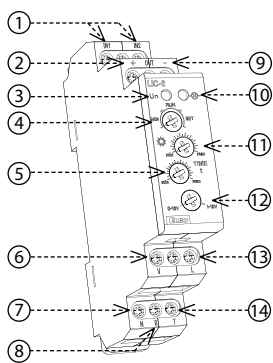
### Lighting intensity controller



#### Characteristics

- serves as control unit for dimmers or electronic ballasts with analog control 0-10 V / 1-10 V
- keeps a preset lighting intensity (automatic regulation)
- control operating modes using existing button:
  - switch OFF
  - automatic regulation
  - cleaning (maximum illumination level)
- setting the basic parameters of lighting is performed by potentiometers
  - min. brightness of illumination
  - maximum illumination level
  - speed of dimming / illumination
- blocking the automatic control using external signal
- power supply AC 100 - 250 V
- 1-MODULE, DIN rail mounting

#### Description



1. Inputs for illumination sensor
2. Analog output OUT (+)
3. Supply voltage indication
4. P1 - operating mode settings \*
5. Speed of dimming / illumination \*\*
6. Relay output
7. Supply voltage N
8. Blocking input B
9. Analog output OUT (-)
10. Output indication
11. P2 - brightness settings
12. Selection 0-10V / 1-10V
13. Supply voltage L
14. Control input T

\* MIN - setting of min. brightness level (e.g. so energy-saving lamps do not go out during regulation).

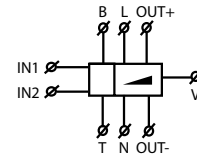
RUN - automatic regulation of lighting (brightness is maintained at the set value and regulated using an illumination sensor).

SET - setting of the required level of illumination for automatic regulation.

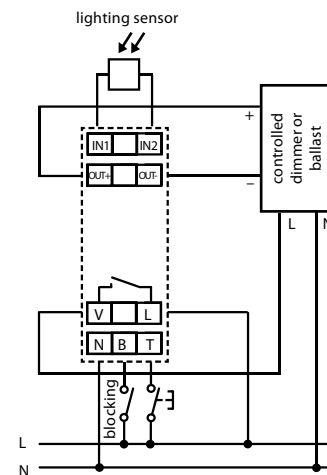
In position SET and MIN, the brightness level is set by potentiometer P2 (green LED also flashes). If the required brightness level is attained, the trimmer P1 is set to the RUN position. The brightness level is thereby set (green LED lights up permanently).

\*\* if the level of brightness on P2 is set on maximum the range is 24...120s

#### Symbol



#### Connection



## Technical parameters

### LIC-2

Supply terminals:	L - N
Supply voltage:	AC 100 - 250 V / 50 - 60 Hz
Consumption apparent / loss:	max. 2.7 VA / 1.4 W
Power supply indication:	green LED

#### Control

Button - control terminals:	L - T
Control voltage:	AC 100 - 250 V
Impulse length:	min. 80 ms / max. unlimited
Glow tubes connection:	no
Button - control terminals:	L - B
Glow tubes connection:	no
Duration of control pulse:	min. 80 ms / max. unlimited

#### Output 1

Analog:	0 - 10 V / 10 mA max. or 1 - 10 V / 10 mA max.
Terminals:	OUT+, OUT-
Galvanically separated:	yes

#### Output 2

Number of contacts:	1x NO (AgSnO <sub>2</sub> )
Current rating:	16 A / AC1
Switching capacity:	4000 VA / AC1, 384 W / DC
Peak current:	30 A / < 3 s
Switching voltage:	250 V AC1 / 24 V DC
Output indication:	red LED
Mechanical life:	3x10 <sup>7</sup>
Electrical life (AC1):	0.7x10 <sup>5</sup>

#### Other information

Operating temperature:	-20 °C to +55 °C (-4 °F to 131 °F)
Storage temperature:	-20.. +60 °C (-22 °F to 140 °F)
Operating position:	any
Mounting:	DIN rail EN 60715
Ingress protection:	IP40 from front panel, IP20 terminals
Overvoltage category:	III.
Contamination degree:	2
Connecting cond. cross-section (mm <sup>2</sup> ):	max. 1x 2.5, max. 2x 1.5, with sleeve max. 1x 2.5 (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight:	78 g (2.8 oz)
Weight of sensor SKS:	20 g (0.7 oz.)
Standards:	EN 60669-2-1, EN 61010-1, EN 60929

## Photosensor SKS

Sensor is external and is connected to terminals IN.

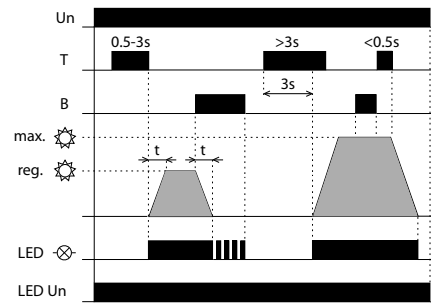
Sensor is installable to panel (by screw-able transparent cover) to opening with diameter 16 mm. A part of the sensor is a plastic holder for placing into the wall or to another place. Length of a line connector to the sensor cannot be more than 50 m. Doublecore cable can be used as wire diameter min. 2x 0.35 mm<sup>2</sup> and max. 2x 2.5 mm<sup>2</sup>. Protection degree is IP44.

It is possible to use photoresistor, which changes resistance in accordance with ambient illumination, as a sensor. Tolerance sensor ± 33 %.

Installation and setup of photosensor:

- sensor can not be installed nearby the windows and shouldn't be exposed to direct sunlight (neither artificial light)
- setting of desired level of illumination should be performed at a maximum darkness (e.g. shutters down) to exclude influence of any illumination from the outside

## Function



Control button functions

- Short press (<0.5s) - always switches off output (relay and output voltage).
- Longer press (0.5...3s) - runs automatic regulation of brightness level (according to sensor).
- Long press (>3s) - sets the max. brightness level (CLEANING mode).

Blocking input function

- Switches off lighting - only in automatic regulation mode (has no influence in CLEANING mode), e.g. for central switching off of lighting.

Output relay

- Switches on always upon switching on the lighting using the button if the DC output voltage is greater than 0.1 V (for the mode 0-10 V) or 1 V (for the mode 1-10 V).
- Upon switching off the light, the relay opens if the output voltage drops below the stated limits.

Red LED

- Illuminates upon active output (at any brightness level).
- Flashes upon activation of blocking.

## 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. HDO warning signals and other similar signals spreaded by main, can cause interruption of dimmer. Interruption is active only during transmitting of these signals.