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Mod. CR1DIN

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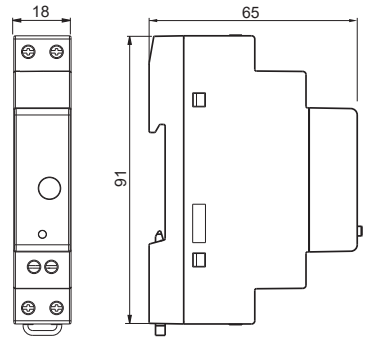
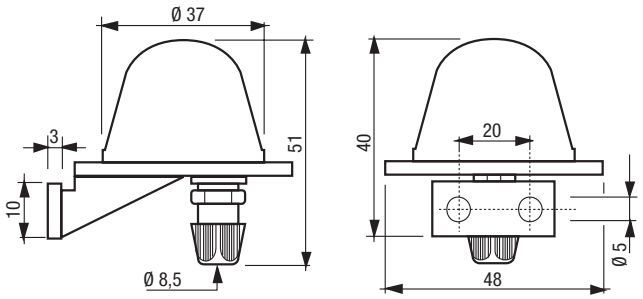
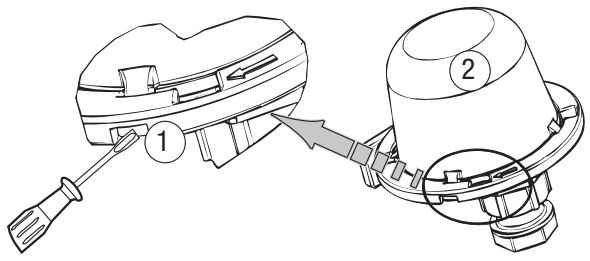
DIMENSIONS



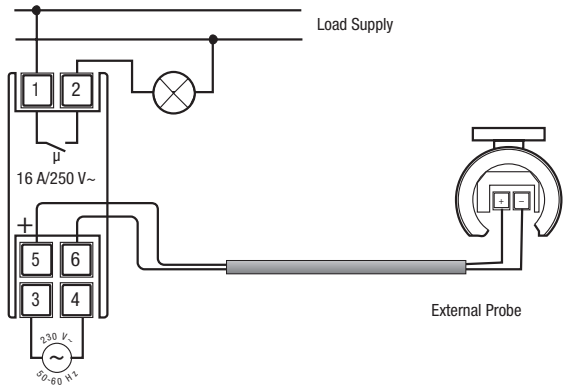
EXTERNAL PROBE: DIMENSIONS



EXTERNAL PROBE: MOUNTING



CONNECTION DIAGRAMS



User Manual

MODULAR TWILIGHT SWITCH

⚠ **Read all the instructions carefully**

- The twilight switch CR1DIN is an electronic switching device with micro distance (μ) of opening between the contacts (EN 60669-2-1).
  The output circuit is activated when the brightness falls below the threshold set after a Ton time. The output remains active for the whole time in which the brightness remains below the threshold and beyond, for the Toff time.

Code	Model	Description
VJ62300000	CR1DIN	Modular twilight switch

SAFETY WARNINGS

WARNING !!
No insulation between probe and power supply

During the installation and the operation of the product it is necessary to respect the following instructions:

1) The product should be installed by qualified personnel respecting scrupulously the connection diagrams in this manual
2) After installation, it must be made impossible to access the terminals without specific tools
3) Before gaining access to the connection terminals, make sure the conductors are not powered
4) Do not power or connect the product if any part of it is damaged
5) The product must be installed and activated in compliance with current electric systems standards.
6) Do not use the product for purposes other than those indicated.
7) A protection device against over-currents should be installed in the electrical system, upstream of the product

TECHNICAL CHARACTERITICS

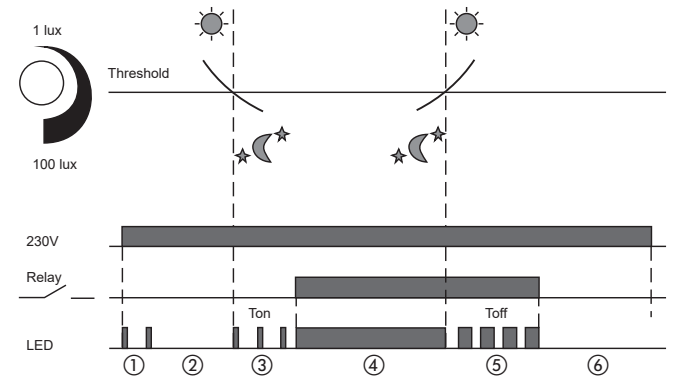
- Power supply: 230 V AC (-15% ÷ +10%)
- Frequency: 50/60 Hz
- Absorption: 6 VA (1 W)
- Contacts capacity:
  - 16 A/250 V~ (resistive load)
  - maximum switchable voltage: 400 V ~
  - maximum switchable power: 4000 VA (resistive)
  - minimum switchable load: 1000 mW (10 V / 10 mA)
- Type of load:
  - incandescent lamps: 3600 W
  - fluorescent lamps: 1000 W
  - LED lamps (<2 W): 55 W
  - LED lamps (2-8 W): 150 W
  - LED lamps (> 8 W): 180 W
- Insulation: reinforced between power supply and load and between accessible parts and the rest of the terminals
- Red LED for signaling:
  - Off = relay off and brightness above the threshold
  - On = relay on and brightness above the threshold
  - flashing = relay off with brightness below the threshold or relay on with brightness above the threshold
- Sensitivity: adjustable from 1 lux to 100 lux
- Intervention Ton time: 15 s
- Release Toff time: 20 s
- Hysteresis: 15% of the set threshold value
- Terminal block: 4 mm^2 terminal
- Container: 1 DIN module
- Degree of protection: IP20
- Storage temperature: -10 °C ÷ +70 °C
- Operating temperature: 0 °C ÷ +50 °C
- Relative humidity: 20% ÷ 90%

External probe (included)
- Protection level: IP65
- Operating temperature: -20 °C ÷ +50 °C
- Maximum distance between probe and device: 50 m

PROBE INSTALLATION

1) Insert a screwdriver in the slot and raise the attachment flap ①
2) Turn the probe cover in an anticlockwise direction until it stops and remove it ②
   ATTENTION: to maintain the IP level, do not lose the gasket
3) Remove the cable clamp from the lower part
4) Place the bi-polar cable in the cable clamp and then in the cable passage of the probe
   ATTENTION: use a dual insulation cable
5) Connect the two conductors to the terminals
   ATTENTION: don't connect the terminals to accessible metal parts
6) Tighten the cable clamp and return the cover of the probe by turning it in the clockwise direction
7) Connect the cable to the terminals 5 and 6 of the device, respecting the indicated polarities (+ on terminal 5; - on terminal 6)

OPERATION



The graph shows the behavior of the relay and of the led during normal operation:

① at power-up (even after a blackout), the LED emits two flashes
② until the ambient brightness is above the set threshold, the relay remains de-energized and the led remain off
③ when the ambient brightness falls below the threshold, the relay remains de-energized and the LED flashes for 15 seconds (Ton)
④ after 15 seconds, the relay is energized and the LED is fixed lit.
⑤ when the ambient brightness returns above the threshold, the relay remains energized and the led flashes for 20 seconds (Toff)
⑥ after the 20 seconds, the relay de-energizes and the LED stops flashing (it turns off)

The LED flashing during the Ton and Toff is different:
Ton: fast flashing
Toff: slow flashing

02-2018

REFERENCE STANDARD

Compliance to the Community Directives:
2014/35/EU (Low Voltage - LVD)
2014/30/EU (Electromagnetic compatibility - EMC)
is declared with reference to the following Harmonised Standard:
• **EN 60669-2-1**