

## INSTRUCTION MANUAL

### ANCILLARY EQUIPMENT FOR ELECTRIC SHOCK PROTECTION IN THE LED MODULE

#### Street lighting applications. Type: ODP ...

Ancillary equipment that protects from electric shocks in the LED module uses sensitive electronic components. As with all electronic devices, it has to be handled and manipulated with care. The manufacturer's recommendations must be followed during installation in order to achieve the highest level of protection possible, in addition to the correct level of durability and operation of both the equipment and the entire unit that it protects.

#### SAFETY



A VLV (very-low-voltage) installation must be carried out, taking all necessary precautions in order to respect the principles of safety in every regard. Any contact or crossover between the mains supply conductors and those of the VLV must be avoided, as well as ensuring that the insulation between them is > 4 kV.

Maintenance and replacement operations must be undertaken by qualified personnel, with the mains power disconnected, strictly adhering to the instructions given on the product and observing current regulations.

#### EARTH CONDUCTOR



The use of the earth conductor is strictly MANDATORY in Class I luminaires.

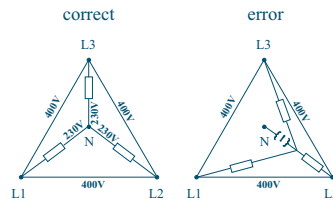
In Class II luminaires with no earth, the earth conductor connection is not compulsory however, if metallic parts are accessible (metal housing), a connection to this point is recommended to evacuate any accumulated electrostatic charge.

#### POWER SUPPLY

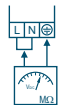


The voltage and supply frequency must be within the normal operating range. The stated polarity (phase and neutral) must be respected.

In 400V three-phase installations, you must ensure that the neutral is always connected. If interrupted, 400V could reach the units with the consequent risk of equipment failure. During installation, the distribution of loads between phases must be balanced out as much as possible.



#### ISOLATION TEST



The ODP protective device guarantees isolation between the output terminals of the LED modules driver (positive and negative terminals) and the Earth. This isolation must continue to be guaranteed once the cabling is positioned inside the luminaire.

#### TEMPERATURE



You must check that the maximum ambient temperature in the installation does not exceed the  $t_a$  temperature displayed on the device, in addition to ensuring the correct level of protection from humidity.

In any event, it must not exceed the  $t_c$  temperature displayed on the protector housing, given that continuous operation at higher temperatures diminishes its level of protection, leading to a gradual reduction in its service life.



#### SCREW TERMINALS AND CABLE PREPARATION

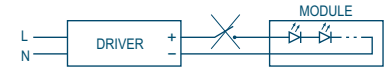
We recommend the use of a single conductor solid wire with a 0,5 - 1,5mm<sup>2</sup> section and a stripped length of 7-9 mm.

Where a previously inserted conductor needs to be removed, make sure that no excessive force is applied to the release system of the connection terminals in order to avoid breakage.

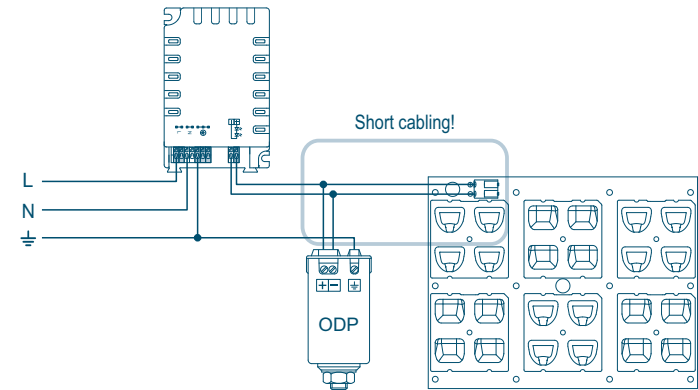


#### INSTALLATION

The installation of a switch at the driver output is not allowed as it might damage the LED modules and the driver itself. To ensure the maximum possible level of protection, the cables that join the ancillary protection device and the unit to be protected must be as short as possible, and in no event exceed 0.5 m or be positioned outside the luminaire.



**The mains power supply must be strictly disconnected prior to any intervention on the LED lamp connection.**



#### RADIO INTERFERENCE

Do not cross the mains connection cables with those of the driver connection to the LED module and the protector.



#### ELECTRIC SHOCK PROTECTION IN THE LED MODULE

In the specific case that problems arise due to the accumulation of electrostatic charge in the luminaire, the ODP+ and ODP- terminals may be connected to the LED module, always provided that the connection is correctly insulated from the entire luminaire unit (>4kV).

#### WIRING DIAGRAM

