

INSTRUCTIONS MANUAL

LED MODULE FOR OPERATION IN CONSTANT CURRENT

Type: eLED MULTI-FIT

The eLED modules use sensitive electronic components and should be handled carefully as any other electronic equipment. In order to achieve a long life and correct functioning, it is necessary to follow these manufacturer recommendations.

INSTALLATION



Installation must be carried out by qualified people having mains disconnected. Instructions and regulations must be strictly followed. The eLED MULTI-FIT modules are designed for luminaires in which their housing may act as the heat sink or which have heat sink on their own. Both of them, the application should ensure a suitable protection against ambient conditions. The module must be fixed into dry surfaces where condensation can not exist. Moreover, they must be free from dust, oil, silicone or other soiling. As far as possible, they should be installed away from heat sources and fastened in such a way as to encourage heat dissipation. eLED products are sensitive to mechanical efforts, avoid applying mechanical tensions, bending stresses, millings, pressure, or any other form of mechanical stress on them. Handle eLED products in protected zones against static electricity. (ESD Electro Static Discharge). eLED modules should be taken by the edges of the printed circuit board, never by the top side where the components are placed. Handling should be done with dissipative and dirt-free gloves, avoiding direct contact with the surface of the LEDs. A maximum gap of 10 mm among consecutive modules is recommended to ensure correct optical performance. The luminaire must be built in such a way that the eLED cannot be touched by an end-user.

FIXING TO LUMINAIRE



To ensure optimum thermal contact with the luminaire, fixing the module to the luminaire by screws is recommended. Each eLED fixation hole accepts M3 DIN7985 screws with maximum torque of 0,6 Nm. Countersunk screws are not allowed, and self-tapping screws are not recommended. eLED MULTI-FIT modules are designed to be compatible with 50 x 50 mm lense arrays with 25,4 mm pitch distance. This allows multiple light distributions.

MAINTENANCE



Maintenance and parts changing must be carried out by qualified people having mains disconnected. Instructions and current regulations must be strictly followed. Do not use any chemical substances for cleaning the eLED as they may damage the optical components, resulting in changes in the light output.

ELECTRIC POWER SUPPLY



eLED modules are not protected against overcurrent and electrostatic discharges. Any operation at module connection must be made without electrical supply. Do not apply mains power to the eLED module directly. The safe and reliable operation of eLED modules can only be guaranteed if the control gear is used in a suitable constant current. It is recommended to use ELT drivers for a maximum performance of the eLED MULTI-FIT module. The suitable constant current control gear must be able to supply the same current or smaller than the maximum current of the module, and the voltage of the assembly formed by these eLED modules is within its range of output voltage. The supply current value of the module will influence both the module lifetime and its photometric values. Operation with a constant voltage LED control gear leads to irreversible damage of the modules.



OPERATING TEMPERATURE

Under no circumstances must the t_c temperature marked on the eLED module be exceeded, due to the fact that continued operation at higher temperatures produces a progressive reduction in life expectancy and a deviation of the photometric values. It must be ensured that the maximum atmospheric temperature in the installation does not exceed the t_a limits marked on the datasheet, and an adequate degree of protection against humidity must be provided.

TERMINAL BLOCK AND WIRE PREPARATION



It is recommend to use of only one wire with a section between 0,2–0,75 mm² and a stripped length 7 - 9 mm. Inserting and removing the wire is achieved by lightly pressing on the connector's push-button. Take care not to cause damage to the printed circuit board or any component during these processes to avoid compromising the insulation performance and photometric properties.

LED MODULES AND PROTECTION SYSTEM RESPONSE



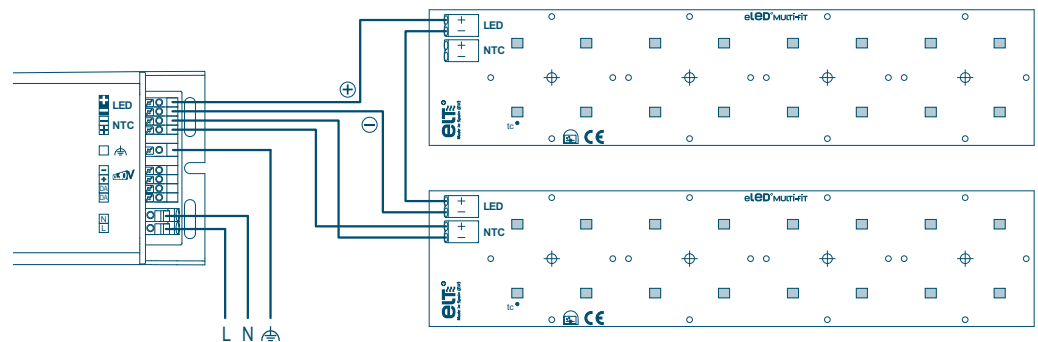
eLED modules are protected against reverse polarity. The eLED module will not turn on during this condition. eLED MULTI-FIT modules incorporate a NTC to assure the lifetime in the critical temperature are achieved, when is used in combination with iLC PRO Programmable drivers by ELT, the default driver profile will ensure the correct Module Temperature Protection (MTP) settings.

WIRING DIAGRAMS



In the case of a system with several modules connected, they must always be connected in series and respecting their polarity (positive, negative). It is important to guide the cable between the different modules so it is out of the light path in order to prevent light losses. In the case a system consists of multiple eLED MULTI-FIT modules only one NTC circuit is connected to the driver, the rest of the circuits are disabled. For the correct working of the NTC circuit, take into account that P/N is NCP18XH103F03RB from Murata.

Combination of 2 eLED MULTI-FIT modules in series :



MARKS AND INDICATIONS



Mark which shows product conformity with European directives.



Maximum temperature allowed at the measuring point indicated on the casing to ensure proper equipment operation.



Built-in LED module. LED module, generally designed to form a replaceable part built into a luminaire, a box, an enclosure or the like and not intended to be mounted outside a luminaire, etc. without special precautions.