

INSTRUCTIONS MANUAL

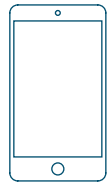
CONSTANT CURRENT CONTROL GEAR FOR LED MODULES

Types: DLCM ...-E-BT and DLCM ...-E-C2-BT

The constant current control gear for LED modules use sensitive electronic components and should be handled with the same care as any other electronic equipment. In order to achieve a long life and correct functioning, both in the control gear and in the LED module, it is necessary to follow these manufacturer's recommendations.

APP DOWNLOAD

The control gear can be controlled with Casambi app, available for iOS and Android devices, as well as with traditional wall switches. The Casambi app can be downloaded free of charge from Apple App Store and Google Play Store.



Compatible devices:

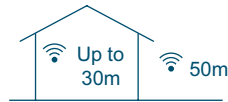
- iPhone 4S or later
- iPad 3 or later
- iPod Touch 5th gen or later
- Android 4.4 KitKat or later devices produced after 2013 with full BT 4.0 support



Range:

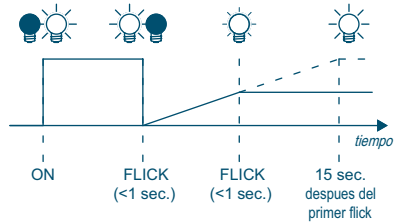
Longer ranges can be achieved by using multiple eBLUE units.

Range is highly dependant on the surrounding: walls, building materials...



Dimming without App

1. Turn lights on from a wall switch.
2. Quickly flick the wall switch off and back on (max.1 sec.). The light level starts to increase gradually.
3. Flick the switch again at desired dim level. The selected level is saved automatically.
4. If the second flick is not done within 15 sec. the light intensity reaches its maximum level.
5. Flicking the switch can also be used to switch between predefined scenes.



SECURITY

The control gear for LED modules must be installed inside the light fixture.

Maintenance and replacement must be carried out by qualified personnel, with no voltage connected. The instructions given with the product and the current regulations must be strictly followed.

EARTH WIRE

The earth wire must be connected to the control gear and the light fixture. It is convenient to connect the metallic structure of the false ceiling (if one exists) to the earth wire.

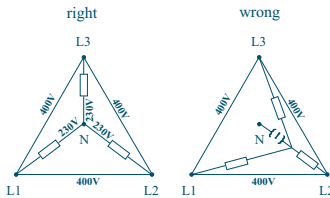
ELECTRICAL SUPPLY

The voltage and frequency of the power line must be within the normal working range specified on the equipment. The polarity indicated must be respected (phase and neutral).

Operation with constant direct current is only allowed in specially designed equipments.

In 400 V triphase installations, it must be ensured that the neutral is always connected; otherwise the 400 V could reach the equipment with the consequent risks. When the installation is being carried out the load distribution between phases must be balanced as much as possible.

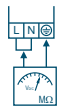
Any procedure at LED lamp connection must be made without electrical supply.



INSULATION TEST

If an insulation test in the circuits which supply the LED driver in the installation is carried out, it must be done applying the test voltage between the phases and the neutrals all together and the earth wire.

The test voltage must never be applied the phases and the neutral or between phases.



OPERATING TEMPERATURE

It must be ensured that the maximum atmospheric temperature in the installation does not exceed the ta marked on the equipment, and an adequate degree of protection against humidity must be provided.

Under no circumstances must the tc temperature marked on the driver's casing be exceeded due to the fact that continued operation at higher temperatures produces a progressive reduction in life expectancy.



TERMINAL BLOCK AND WIRE PREPARATION

The use of only one rigid wire with a section between 0,5 and 1,5mm² and a stripped length 7-9 mm is recommended.

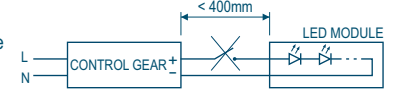
If a previously inserted wire is to be extracted, do not use excessive force on the connection supports to avoid breaking.



INSTALLATION

Placing a switch in the output of the control gear is not allowed. May cause damages in control gear and LED module.

Any procedure at LED lamp connection must be made without electrical supply.



RADIO FREQUENCY INTERFERENCES (RFI)

To comply with IEC / EN 55015 (EMC), the wiring length of the load terminals should not exceed 400 mm.

The mains power cables should not be crossed with the cables going to the load and separated as far as possible from these.



DIP SWITCH HANDLING

DIP switch handling once the device is working may cause its breakdown.

PROTECTION SWITCHES

Each group of control gear for LED modules must be protected by a magnetothermal circuit breaker and a differential dedicated circuit breaker.

Equipments are resistant to transient overvoltages specified in regulations, and must be installed on different circuits separated from each other inductive loads (inductive ballasts, motors, fans etc.)



Differential circuit breaker.

The function of the anti-interference filters in control gear is to divert interference to the earth wire as leakage current.

In triphase systems. Distribute the light fixtures equally between the three phases. The leakage currents will compensate each other.

In monophase systems. The use of a maximum of 35 control gears with each circuit breaker with 30mA sensitivity is recommended.



Automatic circuit breaker.

The ignition of LED modules with these control gears is simultaneous. At the moment of connection, the equipment's capacitors create a strong pulse of current of very short duration, this is called Inrush current. The installation of a maximum number of control gear depending on the type and characteristics of the magnetothermal protection is recommended. See table.

| Type | Inrush Current | | Max no. of equipment per circuit breaker | | | | RCCB 30mA |
|------------------|----------------|------|--|-----|--------|-----|--------------|
| | I. Peak | Time | Type B | | Type C | | |
| | A | µs | 10A | 16A | 10A | 16A | |
| DLCM ...-E-BT | 23 | 240 | 10 | 13 | 14 | 22 | 35 |
| DLCM ...-E-C2-BT | | | | | | | |

| CONSTANT CURRENT CONTROL GEAR FOR LED MODULES AND PROTECTION SYSTEM RESPONSE | | | | | |
|--|--------------------------------------|----------|---------------------------------------|-----------------------|----------------------------|
| Type | Absence of LED module. Open circuit | Overload | Short-circuit in output to LED module | Supply voltage > 264V | Overtemperature |
| DLCM ...-E-BT | Blocks: Waits for a lamp replacement | Blocks | It restarts when problem is solved | Risk of fault | Dynamic thermal protection |
| DLCM ...-E-C2-BT | | | | | |

Block: Stand-by or rest situation

WIRING DIAGRAMS

