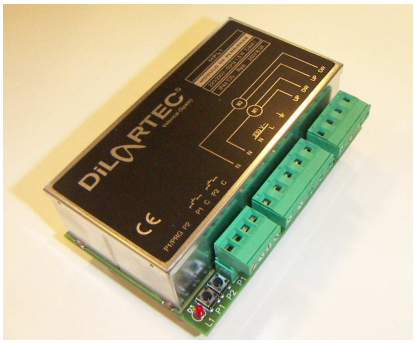
DiLARTEC®

Soluciones completas para el Hogar Digital

MANUAL OF THE LARTEC's BLINDS MODULE (REFERENCE: MPL1)

I. BRIEF DESCRIPTION.



Lartec's blinds module allows the control of elements such us blinds, awnings, curtains, and any other windows covering using a 230V motor, through X10 signals.

The MPL1 module enables to receive X10 signals, acting over two motors in an independent way. Moreover, the MPL1 possess the right connections to control the motorised elements by means of momentary switches.

II. TECHNICAL SPECIFICATIONS.

- Power Supply: 230Vac, 50Hz
- Power: < 1,8W
- Maximum Output Current: 5 A
- Fuses: 5x20, 220Vac, 6,3A temporised.
- Sensibility of the X10 signal: 30mVpp
- Ambient Temperature: 0-45º
- Relative Humidity: 90% no condensed
- Measurements: 120x75x42mm (LWD)
- It requires Ground Protection

Normative:

- Electrical Safety: EN-60950-1 (2001)
- EMC Emission: EN-61000-6-3 (2001)
- EMC Immunity: EN-61000-6-2 (2001)

III. PROGRAMMING.

Programming Blind module.

As any X10 module, the MPL1 must be set up with the X10 address you would like to use it. The programming process is as follows:

1 Pressing shortly and continuously over button 1 until the LED is continuously ON. At this moment, the module will be in programming mode to define the X10 address.

2 Send the X10 address for the 1st motor followed by ON. The led will flicker, in this way, it will confirm you the address modification. If the 2nd motor address is just the following to the 1st motor address, you must go to the point 4. If the 2nd motor address is not the same address, please follow the next point.

3 Send the X10 address for the 2nd motor followed by ON. The led will flicker again, confirming the new address has been programmed.

4 Addresses have been memorized by MPL1. To return to the operative mode you must keep pressed the button 1. After the LED switch OFF, it will start to flicker with 2 seconds of frequency, recovering the normal use again.

IV. FUNCTIONS.

When the MPL1 has the power supply connected, its LED will flicker with 2 seconds frequency. This will indicate it is in the operative mode.

At this state, the MPL1 can be controlled by ON/OFF X10 signals. When the MPL1 receives an ON X10 signal, it carries out an *UP* movement of the element connected. When the MPL1 receive an OFF X10 signal, it carries out a *DOWN* movement.

The MPL1 can also be controlled by momentary switches. The module has been designed with micro-switches in order to provide an easy installation and testing, it is possible to use any type of momentary switch usually opened.

Each motor is controlled by a momentary switch. The MPL1 carries out a different sequence depending on duration of the press.

- *Short Press*: The execution order will change at each short press. The sequence is: UP-STOP-DOWN-STOP.
- *Long Press*: By a long press the movement will be the opposite of the one before. The movement will stop as soon as the momentary switch is not pressed.

IMPORTANT: Due to almost all the 230V motors have their own limit switch; the MPL1 does not oversee the limit switch. Due to that reason, it must be exclusively used with motor which possess such characterise. Thus, in order to allow any motor to arrive to the end of the distance, the MPL1 keeps the power supply during 1 minute. Once passed this time, the MPL1 will disconnect the power supply to the phase.

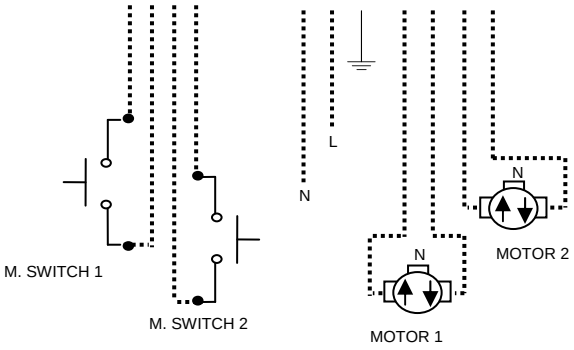
V. USES AND APPLICATIONS.

The most common application is oriented to the control of any motored elements such us blinds, awnings, and curtains.

It is really useful to simulate presence in houses, because of the possibility of programming the opened and closed of blinds and curtains. When coming out of the house, you can fall down all the blinds by pressing only a button.

VI. INSTALLATION.

Momentary Switch Installation.



It is necessary to have the following wires in the place you want to install the module MPL1:

- Neutral
- Phase (230V)
- Ground.
- Up and Down motors (Neutral is optional).
- Momentary Switches. 2 cables for each momentary switch. Maximum distance 10m for a cable with 1,5mm^2 of section.

1. Connect the Ground cable to the corresponding terminal (N).
2. Connect the cable of the momentary switches.
3. Connect the UP and DOWN cable to control the electrical motors.
4. Finally, connect the Neutral and Phase to the corresponding terminals. There are two more terminals to carry out the neutral connection to the motors.

VII. WARNINGS.

Please, do not forget to switch off the main master switch before installing the module.

CE DECLARATION OF CONFORMITY.

Lartec Desarrollos Inteligentes S.L.
C/Gustave Eiffel, nº 3
46980, Parque Tecnológico de Paterna (Valencia-Spain)
Telf. (+34) 902161618
CIF: B97155816

Declare under its own responsibility that the product:

Control Motors Modulo, DiLartec brand, and MPL1 model, produced by Microkey S.L., in Spain, to be used y the EC.

Comply with the essential objective of the directives:

Directive 99/05/CE, of the European Parliament and the Council the 9th of March 1999, adapted to the Spanish legislation through the Real Decree 1890/200, 20th of November 2000.
Low Voltage Directive: 73/23/CEE and its modification 93/68/CEE (R.D. 7/88 y R.D. 154/95).
Directive of Electro Magnetic Compatibility: 89/336/CEE and its modification 93/68/CEE (R.D. 444/94 y R.D.1950/95).

In compliance with the following harmonized standard:

- *EN-61000-6-3 (2001) Residential Environment Emission:*
  - *EN-55022 (1998): Continuous Radiate.*
  - *EN-61000-3-2 (2000): Harmonics.*
  - *EN-61000-3-3 (1995): Supply Fluctuation.*

- *EN-61000-6-2 (2001) Residential Environment Immunity. Including:*

  - *EN-61000-4-3 (2001): Radiate Electromagnetic Field.*
  - *EN-61000-4-4 (1995): Burst transmission of quick Transient*
  - *EN-61000-4-5 (1995): Choke Waves.*
  - *EN-61000-4-6 (1996): Wired Electromagnetic Field.*
  - *EN-61000-4-8 (1993): Radiated Electromagnetic Field.*
  - *EN-61000-4-11 (1994): Radiated Electromagnetic Field.*

- *EN-60950-1 (2001) Low Voltage Security.*

Paterna, Valencia, 28th of November 2005

Jorge Antonio Torres Rico
Telecommunication Engineer

DiLARTEC®

Soluciones completas para el Hogar Digital

LARTEC DESARROLLOS INTELIGENTES, S.L.

Edificio DiLARTEC®
PARQUE TECNOLÓGICO
C/ Gustave Eiffel, 3
46980 Paterna
VALENCIA

902 16 16 18
www.lartec.es