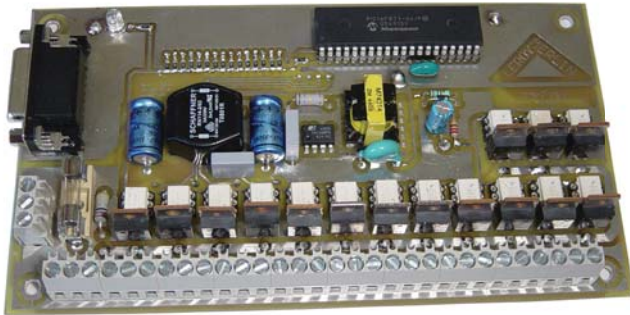


# Tailor-made Products

**Control circuit / multiple loads / AC voltage**



**Reference :**

**Define name - VOLTAGE(S)**

**Example : LMCP15L230CA**

## / Generalities

The following electronic circuit designed for one of our client companies, powered in 230Vac, allows to control, using a DB15 plug connected to a computer or PLC and RS232 protocol up to 15 loads. Each output is galvanically isolated by opto-triac and can control up to 200W max.

## / Description

- **Board circuit :** Epoxy double sided delivered without housing, product Rohs, UL 94 V-0. It has 3 terminals: one for power (3-pin), 1 to 15 outputs (30 pin) and 1 DB15 to connect to PLC or PC (via RS232 or RS485).

Switching power supply, filtered output control by Triacs with galvanic isolation. Tracking supply terminals (Phase, Neutral and Earth) DB15 connector very low voltage (5V and 12V).

## / Technical specifications

- **Supply voltage (+/-25%), consumption, ... :**

Circuit supply voltages	standby consumption	Load supply voltages	Maimum power	Cutoff frequency filter
from 90 to 230 Vac	1 W	from 90 to 230 Vac	1 KW	1K Hz

- **Conformities :** Norms EN55015, EN61547, EN61000-6-2, EN61000-6-4, ROHS, Reach, CE.
- **Safe :** Any intervention and / or wiring must be done off.
- **Control :** Each part is galvanically isolated from each other by opto triacs.
- **Protect :** Fuse 6A.
- **Communication :** RS232, speed = 9600 Bauds.
- **Other :** RS485, modbus protocol.
- **Lifetime (MTBF\*) :** 100 000 hours.
- **Operating temperature :** -20°C à +70°C, (22°F to 158°F).
- **IP Protection standard :** IP00

(\* : mean time between failure)

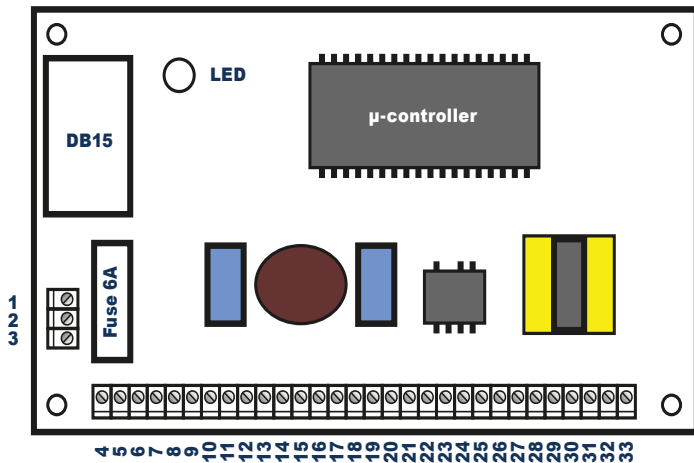
## / Advantages

- Insensitivity to vibrations, mechanical shocks.
- Resistance to moisture and water splashes.
- Electrical shocks resist : 5KV during 50µs.
- Immunity against magnetic fi elds.
- Assembly and disassembly easy, fast and secure .
- Exceptionally long life and unparalleled.
- Low power consumption and heat dissipation.



## Electrical connections

### • Front view :



### • Description :

**1** : Phase (from 90 to 230Vca).

**2** : Ground.

**3** : Neutral.

**4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 et 32** :  
Output load common (wiring to the neutral).

**5** : Output load 1 (Phase).

**7** : Output load 2 (Phase).

**9** : Output load 3 (Phase).

**11** : Output load 4 (Phase).

**13** : Output load 5 (Phase).

**15** : Output load 6 (Phase).

**17** : Output load 7 (Phase).

...

**17** : Output load 14 (Phase).

**17** : Output load 15 (Phase).

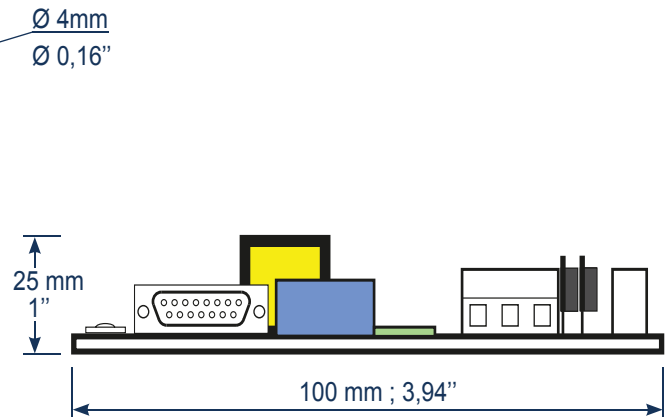
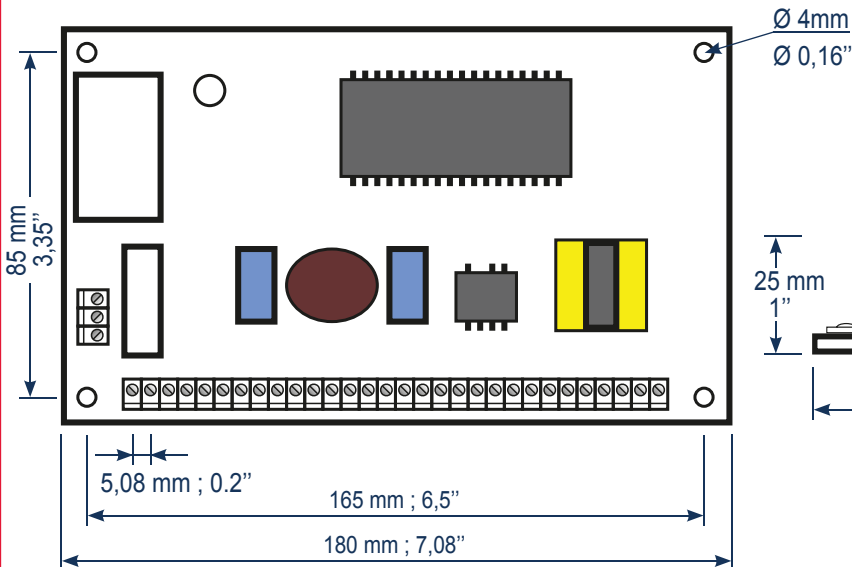
Each part is galvanically isolated from each other by opto triacs. Codes and frames communication are defined with the customer. 4 fixing points screw (M3) at the ends of the map are connected to terminal 2 (Earth/Ground). It must be wired for security issues and filtering.

Be careful not to intervene when the card is turned on.

The metal portion of certain components is connected to 230 VAC. Do not short-circuit the outputs.

## Mechanical specifications

### • Fixing : 4 attachment points of 3.5mm diameter (M3).



## Options & warranty

• **Options** : On request other voltages, threshold voltages, LED colors, Add siren sounds, LCD display, other programs ...

• **Warranty** : 24 months manufacturer. No terminal or other metallic thing must be welded or lose the guarantee.

• **Recommendation** : The terminal number 2 (Earth) must be wired for optimal filtering and security.