



# I-87

## 12 V D.C - From 20° up to 500° THERMOSTAT

The I-87 module is a thermostat could operate in temperatures between 20°C and 500°C. The module will activate the output when the temperature will decrease about 1,5 % under the adjusted temperature and deactivate the output when the temperature is 1,5 % over. The module has a relay output allowing any kind of loads. To adjust the temperature, you have to use the potentiometer inserted in the PCB.

It includes protection against polarity inversion, Led to indicate its operating, connector to substitute the external potentiometer as well as connection terminals.

**Please read the complete manual instructions before to use it in order to obtain a correct operating.**

### TECHNICAL CHARACTERISTICS.

Voltage.....	12 VDC.
Maximum Consumption.....	60 mA.
Minimum Consumption.....	10 mA.
Maximum Accepted Load.....	2 A.
Maximum Temperature.....	500°C
Minimum Temperature.....	20°C
Led to Indicate Operating Mode.....	Yes.
Protection Against Polarity Inversions.....	Yes.
Sizes.....	85 x 50 x 30 mm.

### OPERATING.

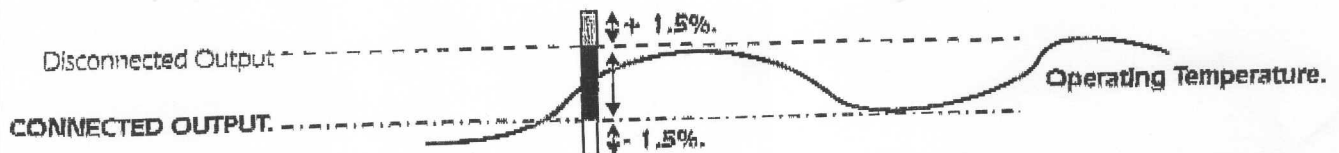
**POWER SUPPLY.** The I-87 circuit had to be supplied by a 12 VDC power supply correctly filtered. We recommended you the FE-2 power supply which has been developed to perfectly answer to the circuit needs. Connect the positive of the power supply to the positive terminal indicated in the wiring map, then connect the negative of the power supply to the negative terminal indicated in the circuit. **Verify that the assembly is correct.**

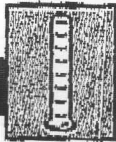
**OPERATING.** See the "General Wiring Map" paragraph and install the probe to the indicated terminal. If the cable of the probe is superior than 100 cm, you have to use shielded cable. The distance have to be not much more longer and the maximum distance is 2 meters.

To adjust the operating temperature, firstly you have to apply this temperature to the probe using a thermometer. When the temperature is stabilised, you have to adjust the "RV1" potentiometer up to disconnect the relay. Once this operation done, the module will maintain 0,5°C up & down the operating temperature. For instance, if you adjust the circuit to maintain a constant temperature at 97°C, the module will connect the output when the probe note a temperature inferior than the adjusted one. The output will be connected up to the probe note 98,5°C, then, it will be disconnected up to the temperature decrease again at 95,5°C.

**HANDLING & INSTALLATION.** Do not separate the probe and the connected PCB, neither introduce it on liquid or abrasive environments.

Do not adjust the resistor included in the PCB to avoid to damage the circuit.





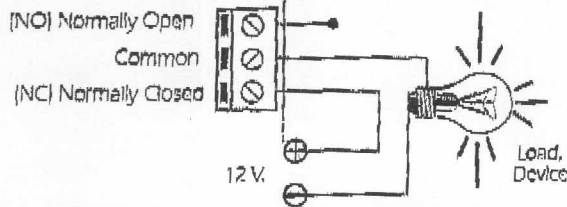
# TEMPERATURE DETECTORS.

Ref. Full9808\_Ang.

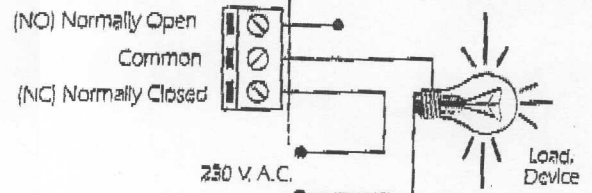
# 1-87

## LOAD'S CONNECTION.

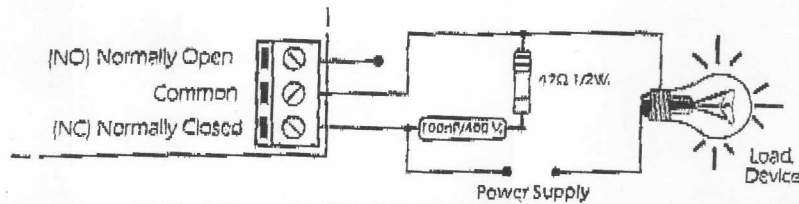
### CONNECTION TO 12 V. D.C.



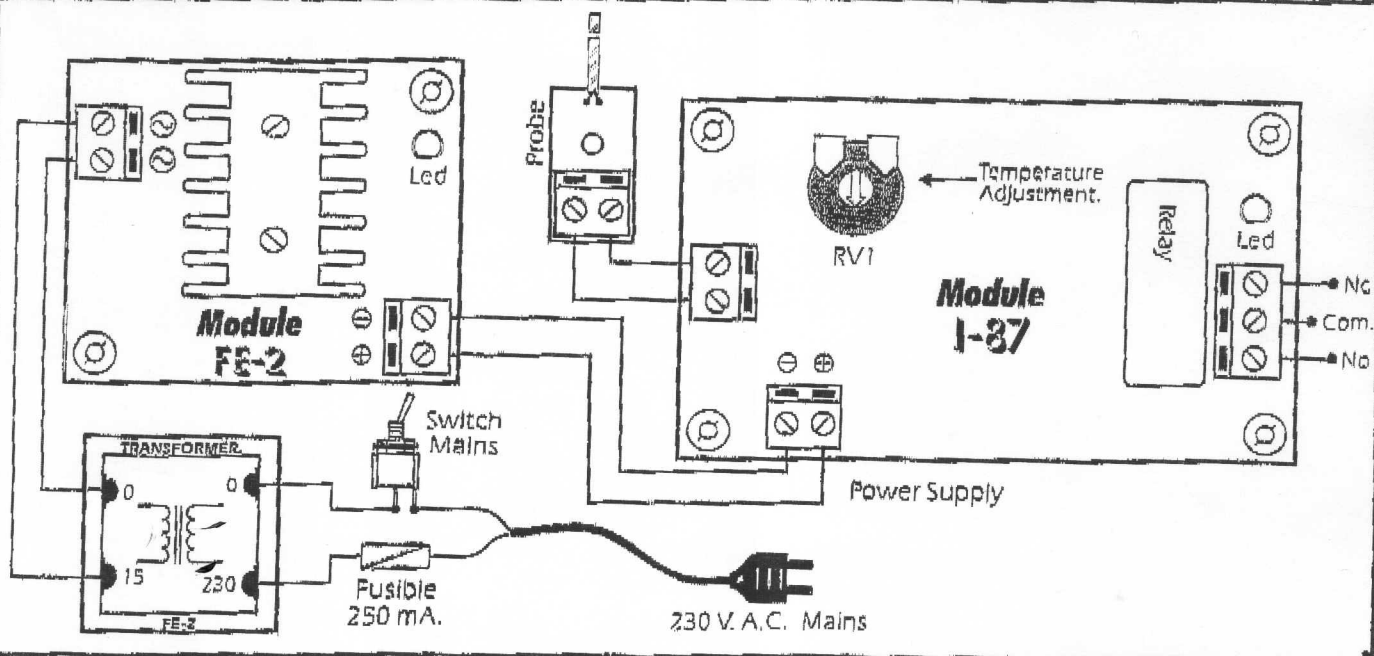
### CONNECTION TO 230 V. A.C.



When the circuit works, and according to the load you could note a fluctuation or incorrect operating on the output. If it is the case, you have to connect a circuit (composed by resistor and capacitor) between both contacts of the relay (see the schedule herewith).



## GENERAL WIRING MAP.



## TECHNICAL SUPPORT AND INFORMATION.

For any questions or more information:

**By Fax:** (24h.) +34.93.432.29.95

**By Mail:** C/ Quetzal, 17-21, Entlo. 2ª (08014) BARCELONA - SPAIN.

**By E-Mail:** [cebek@cebek.com](mailto:cebek@cebek.com)

**Keep you invoice.** For any repairing could you send this with module. Else, the module will lost the warranty.

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MODULES.**

All the module's CEBEK have **3 years of total warranty** in technical repairing, and spares from the date of buy.

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**3  
YEARS**