CEBEK®
ELECTRONIC CIRCUITS

I-8

THERMOSTAT FROM -10 UP TO 60ºC AT 12 VDC.

The I-8 module is a thermostat operating at 12 VDC and a range of temperatures from 10 to 60 ºC. The module will activate the output when the temperature is 0,5 ºC inferior regarding the adjusted temperature and desconnecting it when it is superior than half degree. The output is a Relay allowing tp connect any kind of loads. The temperature adjustment is made using a potentiometer inserted in the PCB. It also includ a protection against Polarity Inversion, indicator led, connector to substitute the external potentiometer and

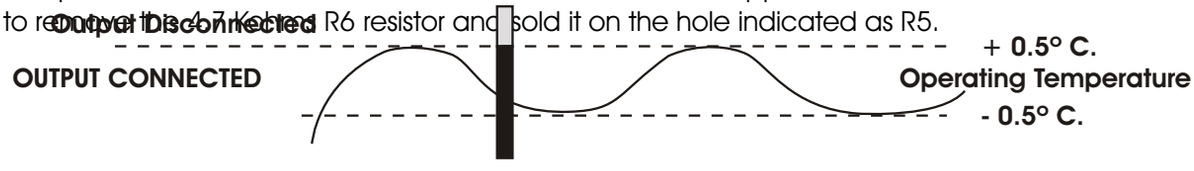
TECHNICAL CHARACTERISTICS.

Voltage .....12V. D.C.
Maximum Consumption .....60mA.
Minimum Consumption .....10mA.
Maximum Temperature .....60ºC.
Minimum Temperature .....-10ºC.
Maximum Load for the Relay .....5A.
Protection Against Polarity Inversion .....Yes.
Indicator led .....Yes.

OPERATING.

POWER SUPPLY OF THE MODULE. The I-8 circuit had to be supplied by a 12 VDC power supply correctly filtered. Do not use suppliers or rectifiers disturbing the module's operating. Then, 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.

OPERATING. Seeing the General Wiring Map, connect the probe supplied with the module to the indicated terminal on the circuit. If the required cable length is superior than 100 cm. you have to use a shielded cable. Maximum length 200 cm.To adjust the temperature module, firstly you have to apply to the probe the maximum temperature that the module have to control, using a standard thermometer. When the temperature is stabilised, you could adjust the potentiometer till the relay's connection. Then the module will register this temperature as maximum operating temperature, being the minimum operating temperature the same but one degree less. Therefore, the module will be maintained on the operating temperature which will correspond to half degree less than the maximum temperature and to half degree more than the minimum temperature. For instance, if you adjust the circuit for 37ºC as maximum temperature, the module will connect the output, each time the probe detect a temperature equal or superior, and will be maintained till the temperature decrease and the probe detect the minimum temperature or inferior 36ºC. At this moment the output will be disconnected till the temperature increase again. As conclusion, we could say that the operating temperature is 36,5ºC. The module could also be used in opposite mode. To activate this function, you have to remove the 4,7 Kohms R6 resistor and sold it on the hole indicated as R5.



OUTPUT/CONNEXION OF THE LOAD. The I-8 output is by relay allowing to use any load inferior at 5A. as maximum consumption. The relay has 3 output terminals the normally open at quiescent (NA), the mormally closed at quiescent (NC) and the common. The operating of this mechanism is the same as a switch with two (2) terminals NA and common, if you wish that the output will be activated when the detector do not receive light, or between the NC and the common to obtain the reverse operating.

In the Output connection paragraph, you could apreciate the typical connection for a devices operating at 12 VDC and to operate at 220 VAC.

The installation is between the Common and NA, where the device or load that you wish to control will be

TEMPERATURE DETECTORS.

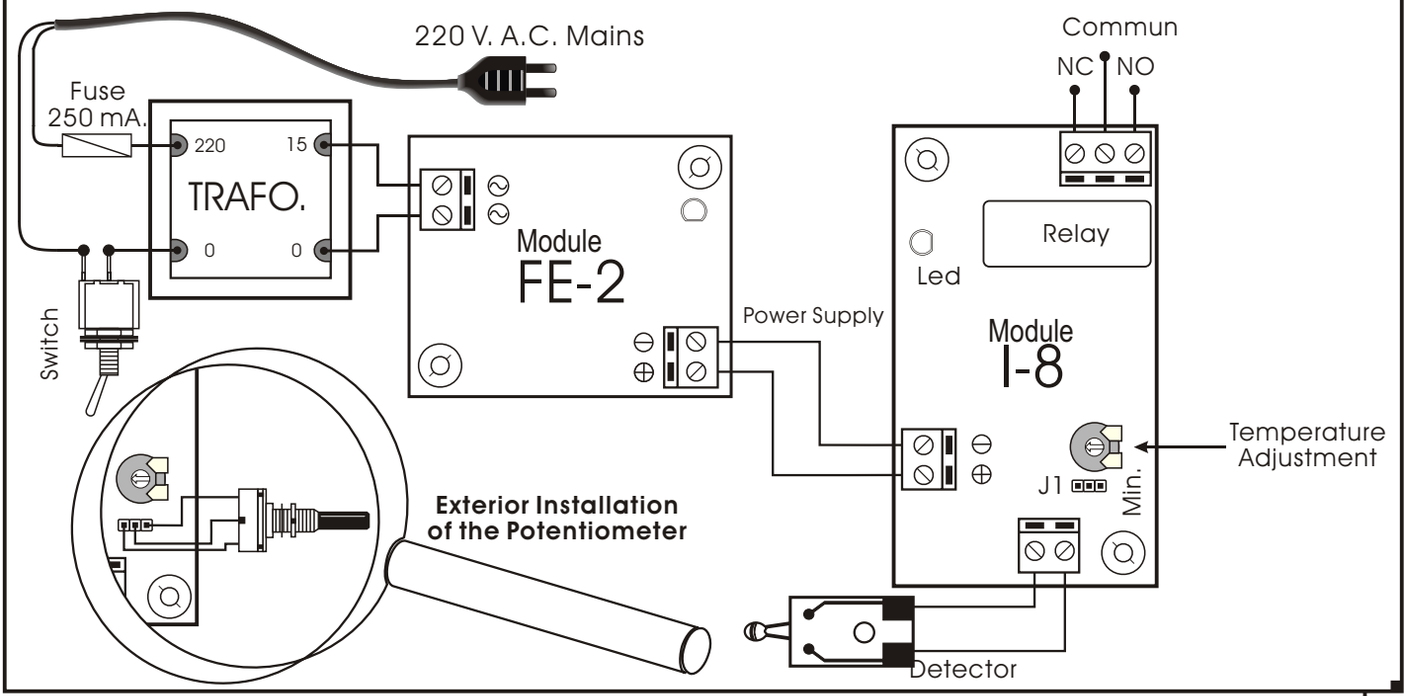
Ref. FULL9726_An.

I-8

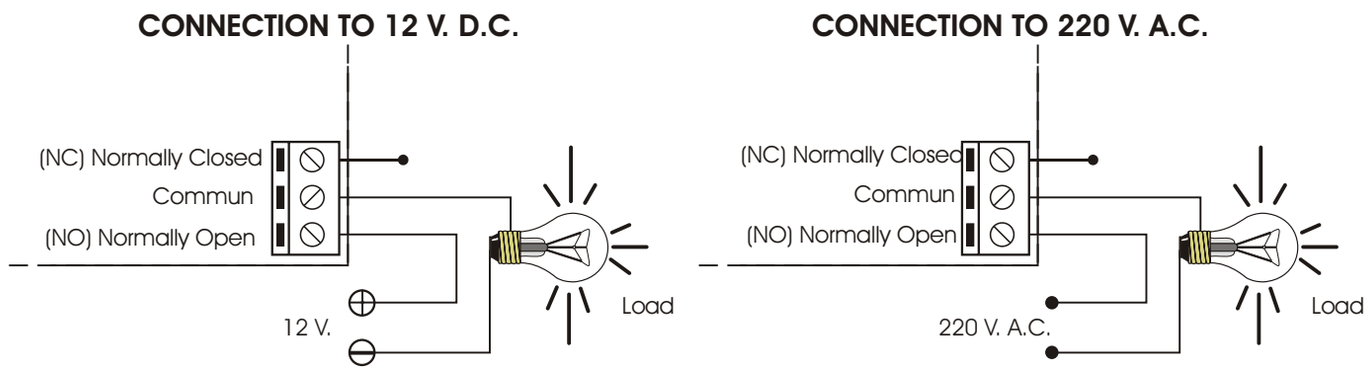
OPERATING.

EXTERIOR INSTALLATION OF THE POTENTIOMETER: If you wish to withdraw or substitute the potentiometer inserted into the P.C.B by an exterior one, firstly you had to supress the already soldered potentiometer. Then, and as it is indicated in the drawing, connect the cable between the element or jumper indicated as "J1" and

GENERAL WIRING MAP.



OUTPUT CONNECTION/LOAD.



TECHNICAL CONSULTATIONS.

If you have any doubt, you could contact your wholesaler or our Technical Department.
- By E-Mail, **sat@cebek.com** | by mail P.O Box 23455 - 08080 BARCELONA - SPAIN.
- **Keep the invoice of this module**. For any repair, the corresponding invoice had to be added. If the invoice is not presented together with this module, the module's warranty will be automatically cancelled.

MORE 300 MODULES.

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

CEBEK is trade make of FADISEL S.L. more than 300 module's are avaible in stock for any purpose **request our CATALOGUE,** or visit our Web.
Http://www.cebek.com

WARRANTY 3 YEARS