8 A DC REGULATOR 0-10V
R-25

TECHNICAL CHARACTERISTICS

Voltage. ..... 8 - 30 V DC.
Minimal Consumption. ..... 35 mA. .
Maximal Consumption. ..... 130 mA.
Maximum acceptable Load.. ..... 8 A.
Control signal voltage. ..... 0 to 10 V. D.C.
External Potentiometer. ..... 10 K.
Protection Against Inversion Polarity. ..... Yes.
Dimensions. ..... 87,5 x 72 x 30 mm.

It allows an adjustment through an external 0 to 10 V DC signal or through a standard potentiometer adjusting from 0 to 100% the alternate charge connected to the circuit.
It includes a selector for ascending or descending operating mode; Indicator Led, protection fuse and minimum adjustment

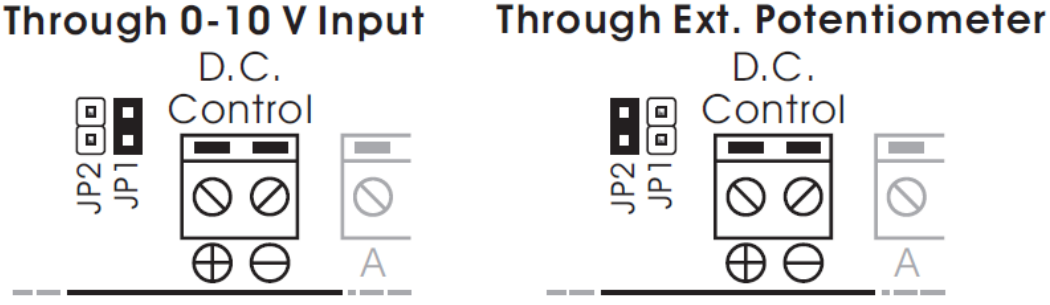
INSTALLATION AND OPERATING MODE

POWER SUPPLY. The R-25 circuit had to be supplied at the maximal operating voltage indicated by the device or by the load that you wish to adjust. This voltage can not lees than to 8 V DC neither greater to 30 V DC. and it has to be perfectly filtered. For this reason, we recommend you to use a power supply and not transformers or rectifiers which can damage the circuit operating mode. For instance, if you want to adjust a 24V motor, you have to supply the module with 24 V DC.
To supply the circuit, you have to connect positive and negative terminals of the power supply to the screw corresponding to the terminal indicated as “INPUT”, respecting their polarities.
The distance between the power supply and the module has to be as short as possible.
Install a fuse and a switch has it is indicated on the general wiring map. Both are necessary for the module's protection as well as for your own safety, as it is required by the “CE” regulations.
Verify that the assembly is correct.

OUTPUT CONNECTION AND MINIMUM ADJUSTMENT. Install on the terminal indicated as “Output” the device that you wish to adjust. Do not forget that this device can not be consume more than 8A.
In order to adjust the minimum activation point of the load, you have to use the variable resistor incorporated in the circuit and indicated in the General Wiring Map as “Minimum Adjustment”.

OPERATING MODES. The R-25 module allows two different adjustment modes: Adjustment trough external potentiometer or through control signal (0-10V DC). To select the wished operating mode, you have to place the Jumper JP1 according to your needs. (Cf. fig 1). If you don't close any Jumpers (JP1 or JP2), or if you close both, at the same time, the module doesn't operate correctly.

Fig. 1. To configure the Adjustment Mode.



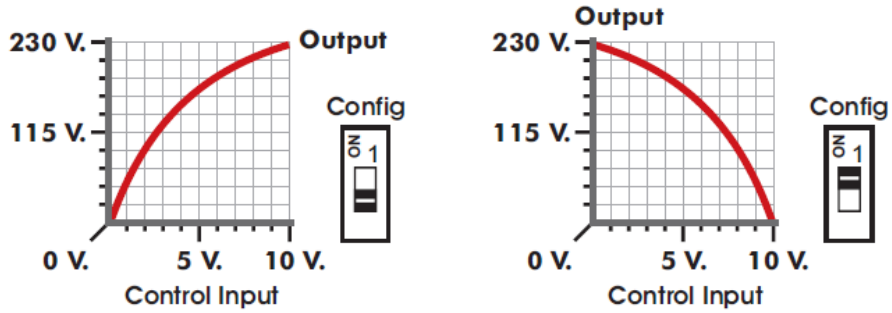
0-10V SIGNAL INPUT MODE. If you have placed the Jumper in JP1 position, the module will be configured to adjust the output according to an external input signal from 0 to 10 V DC.
To inject this control signal, you have to connect positive and negative cables from the signal to the input indicated as “DC Control”, respecting their polarities. The cable length as to be as short as possible. If the distance is over to 50 cm, you have to use a shielded cable and to connect the braid to the negative screw. In all cases, the maximum length can not exceed 2 m.
Once the assembly done and the module supplied, when the control signal voltage will vary the module correspondently adjust the output.
The control signal has to supply a perfectly stabilised voltage and it will never overpass 10V, to avoid to damage the module

OPERATING MODE

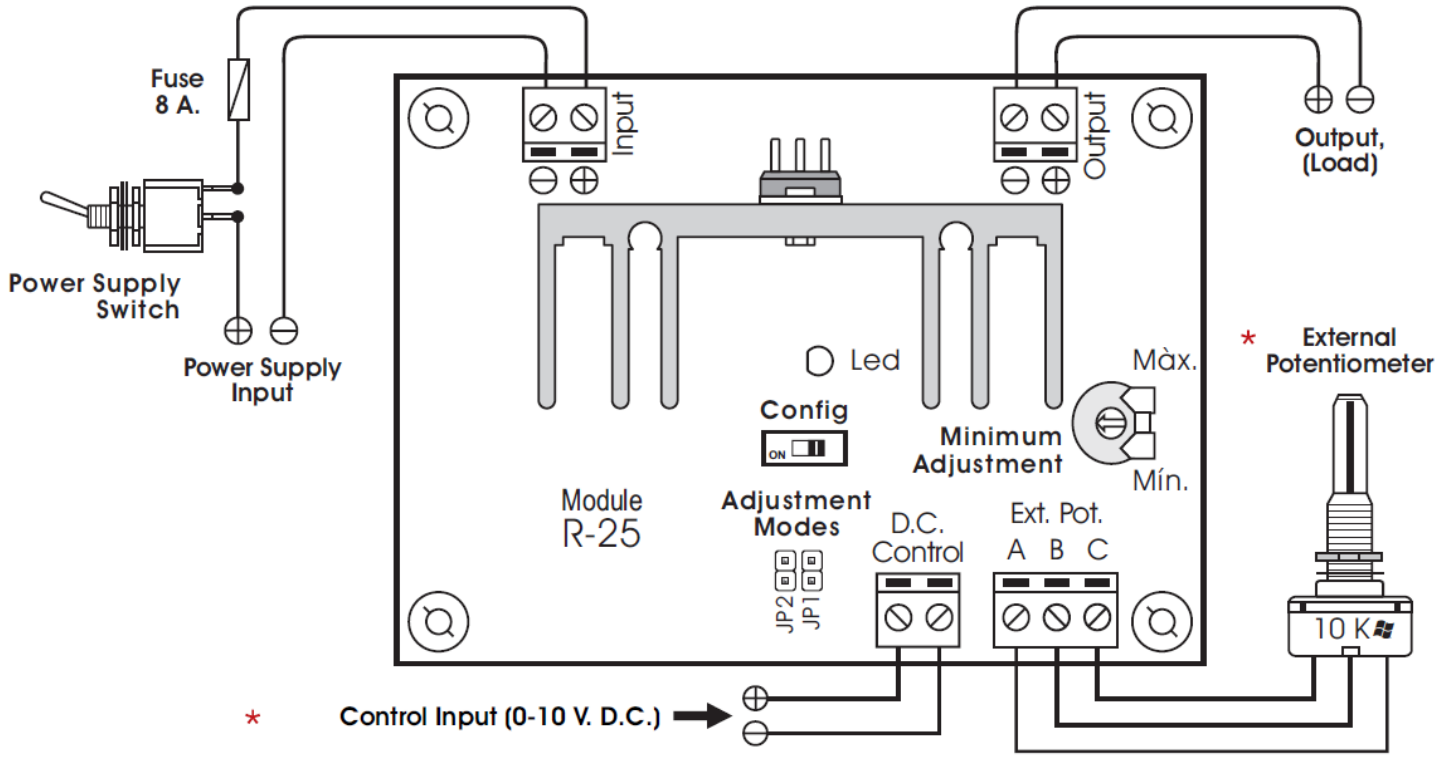
ADJUSTMENT MODE THROUGH EXTERNAL POTENTIOMETER. If you place the Jumper in JP2 position, the R-25 module will adjust the output according to the rotation of the external potentiometer connected to the circuit. The potentiometer has to be 10K type and connected to the terminal indicated as “EXT. POT.”. Follow the assembly according to the instructions indicated in the “General Wiring Map” paragraph.

ASCENDING / DESCENDING ADJUSTMENT. Independently of the selected operating mode, the adjustment could be done in ascending or descending mode.
In the Control through Signal Input, if you place the “Config” switch on OFF position, the output will allow an adjustment between 0 and 100%, directly proportional to the control signal value. At the opposite, if you place the “Config” switch on ON position, the output will operate in inverse proportion regarding to the control input. See Fig.2.
To adjust through the external potentiometer, the change of the “Config” switch position will only affect the rotation way of this component

Fig. 2. Output according to the Control Signal and the situation of the “Config” switch.



GENERAL WIRING MAP.



* **IMPORTANT. You only have to install the Control Input or the Potentiometer. Never both.**