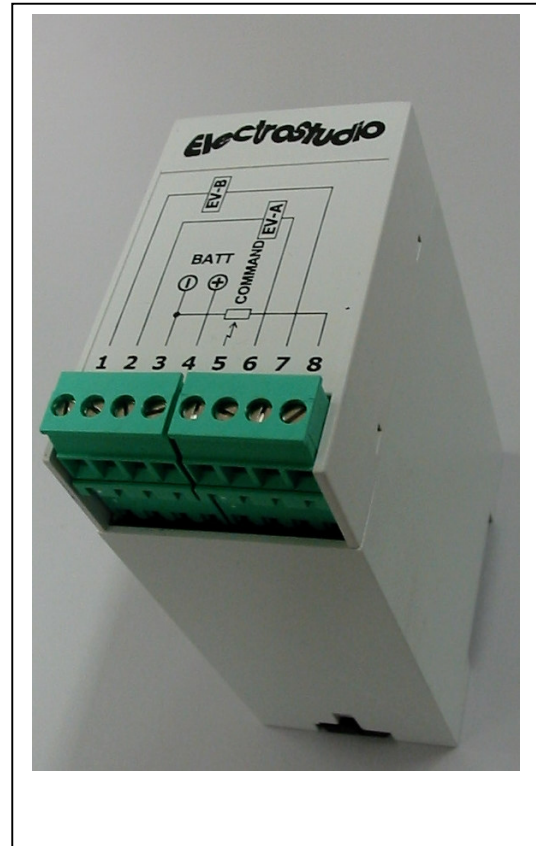


Proportional Valve Controller—DIN Rail Mount—

A DIN rail-mount style control amplifier for controlling proportional valves.

FEATURES

- Linear rise and fall ramp generator
- Wide input supply (11..33V)
- PWM current amplifier
- Output current not influenced from temperature, supply voltage or coil resistance
- Protection from output short circuit and reversal supply voltage
- Screw Terminal Connections
- Adjustments and connections clearly labeled
- Filter eliminates electrical noise.



DESCRIPTION

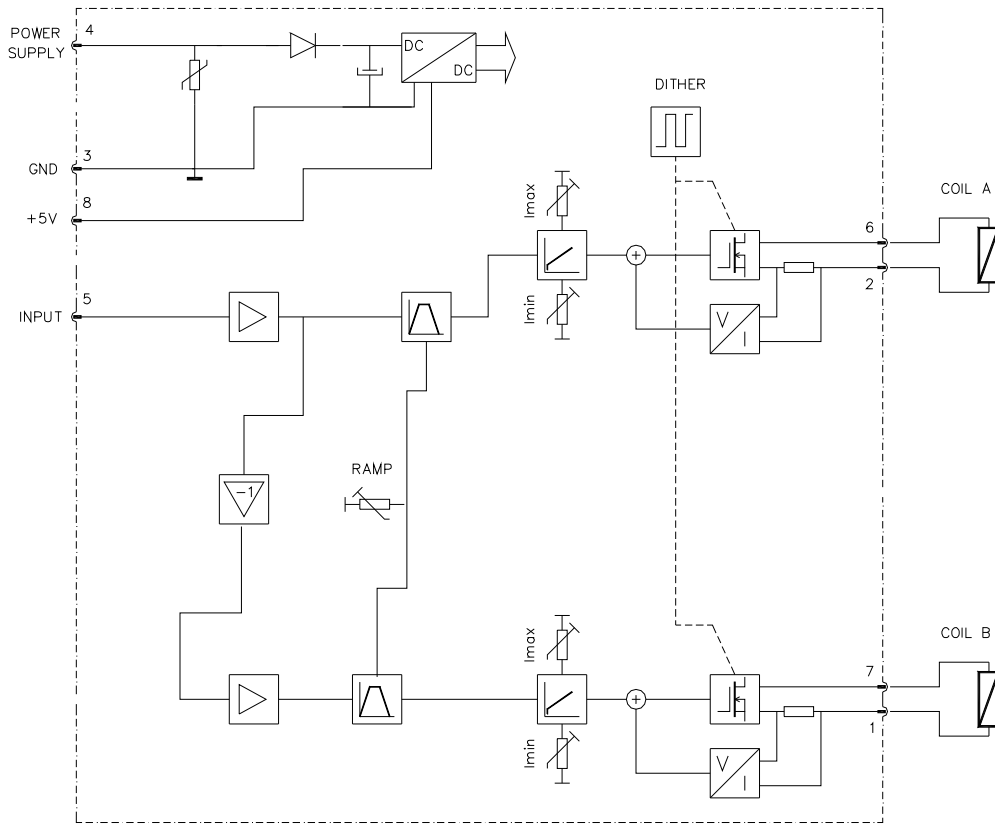
The amplifier is studied in order to pilot valves proportional single or double solenoid.

The circuit of regulation of the current uses the principle of the modulation of width (PWM) with feedback on the output current.

The feedback allows to obtain output current stable to variation of supply, temperature or coil resistance.

All the regulation are accessible outside through a small screwdriver.

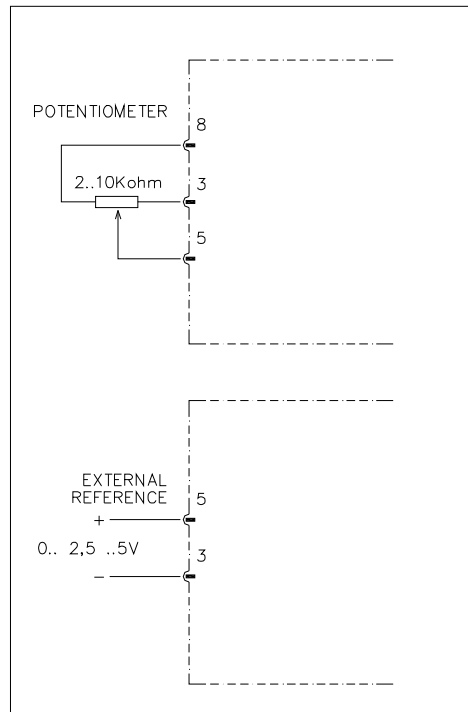
SCHEMATIC



RATINGS

Supply	11..33 Vdc
Output Current	2.5 A
Control Input Signal	0.. 5V
Reference output	+5V (max. 10mA)
Ramp Up and/or Down	0..10 seconds
Adjustments	Zero 0..100% Gain 0..250% Ramps UP/DOWN
Dither (PWM)	110Hz (\pm 5Hz), other on request
Case	ABS 46x75x103mm
Connections	Screw Terminal
Temperature operating	-10..60 °C
Temperature storage	-40..+80 °C
Protections	Short circuit and reverse polarity

Connection command signal

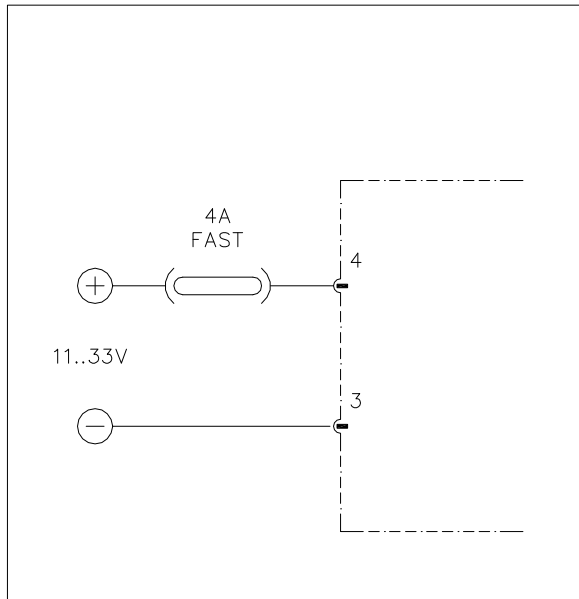


Note:

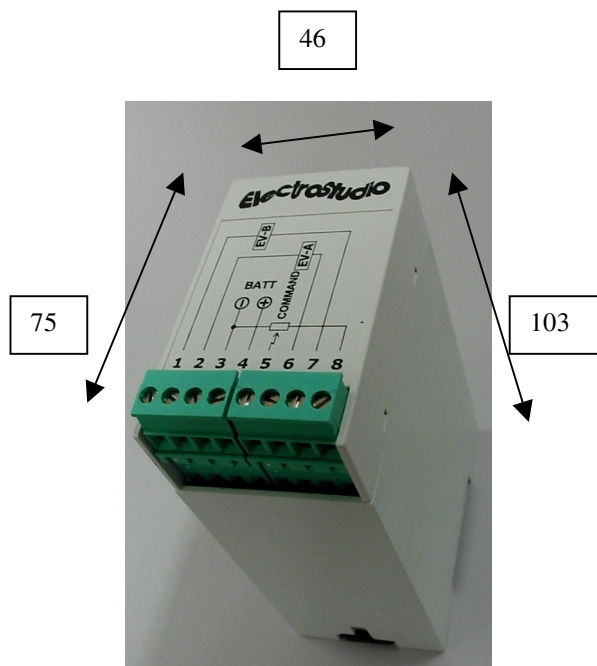
To use shielded cables in order to connect the references and the coils with the connected stocking to earth.

To use in order to connect the coils and supply cables with section $2 \times 1 \text{ mm}^2$ until 20 meter, $2 \times 1.5 \text{ mm}^2$ beyond 20 meter.

Supply



DIMENSIONS



(dimensions in millimeter)

Basic Setup (double output)

To set up lessened the trimmer of regulation “Imin” and “Imax” of the channel A and channel B

To set up lessened the command signal.

Before supplying the module make sure that no unexpected movement of the hydraulic system can damage persons or things.

Turn ON supply

Calibration (Imin)

Slowly increase the trimmer of the minimal current (Imin) until visually find a movement of the actuator. Slowly diminish the trimmer until arresting the movement of the actuator.

Repeat the operation for both the directions (out A and out B).

Calibration (Imax)

In the event the system can be damaged from a too much fast operation of the system, move preventively the trimmers of the ramps (up and down) at least 10 turns in increase. Set input command at max.

Slowly turn the trimmer of the gain (Imax) until obtains the maximum demanded speed.

The calibration of the maximum current could vary the minimal current. Advisable is to recheck the value of the minim.

Repeat the operation for both the directions (out A and out B).

Calibration ramps

The time of ramps is the employed time in order to pass from the value of minimal current to the value of the maximum current and vice-versa.

Adjustable from a minimum of 0 second to a max of 10 second, is in climb and in reduction.