

Speed, torque & power



ref. GRANMECA

For rotary sensors with brushes and static sensor

ref. GRANMECA-V2

only for brushless sensors



GENERAL FEATURES

GRANMECA is a display unit for showing 3 mechanical values of torque, speed, and power, with measurements taken on rotating machines using a torque sensor and a tachogenerator. It also includes:

- a manually adjustable energising source for a powder brake
- analog copies of output of the three mechanical values.

Supply : 230V 50Hz, 30VA.

Dimensions : 375 x 80 x 275 mm - 5.8kg.

Height of digits : 15mm

DIRECT DISPLAY

- of the mechanical torque in Nm

Sensors used: any type of standard rotating or static sensor with 4 strain gauges on the Wheatstone bridge. GRANMECA feeds the bridge at 10V, recovers the signal and displays the mechanical torque through an adjustable gain amplifier.

- of the speed of rotation n in rpm.

Sensors used: any tachometric dynamo of rating 10 - 20 - 60 V at 1000 rpm.

- of the power W

GRANMECA calculates internally the mechanical power $P_u = M 2\pi n / 60$ and directly displays the results in watts.

FRONT PANEL ADJUSTMENTS

- zero calibration of the torque sensor
- calibration of the torquemeter depending on the sensor
- manual control of braking intensity (compatible with brakes FP1, FP2, FP3)

ANALOGUE INPUTS AND OUTPUTS

The rear of GRANMECA is equipped with:

- a brake control input by 0 to 10V externally controlled by an analog signal . Impedance 1k Ω
- a 0 to 5VDC output at 500mA manual energising adjustment for a powder brake
- a -5 to +5V* instantaneous torque image output.
- a -5 to +5V* average torque image output**
- a -5 to +5V* instantaneous speed image output.
- a -5 to +5V* average speed image output.
- a -5 to +5V* average power image output.

* The sign indicates the direction of rotation of the motor.

** The integration time constant of the average values is 1s.

GRANMECA is compatible with:

- motors of 90 - 300 - 1500 - 3000W
- static and rotating torque sensors of 2 to 100 Nm
- tachometric dynamos of 10 - 20 - 60V at 1,000 rpm.