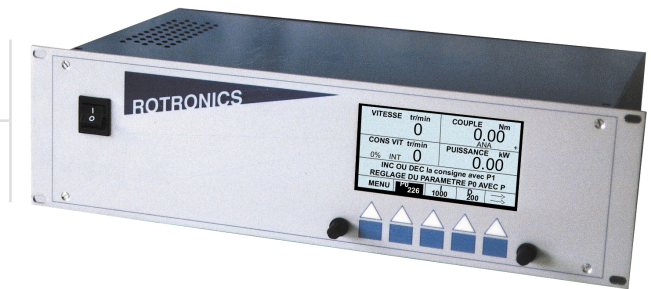


RRN104 & RRN104D

Digital control rack

version 1.0

The **RRN104 rack is an integral loading brake management system for dynamometer test beds**. Its twin processor digital technology simultaneously allows rapid and accurate loading brake management, together with real time display of processed data : speed, torque, power, load, test settings and alarm status. The system allows several setting modes, extended configuration options and facilities for environmental corrections:



Operating modes :

- Operation at constant speed : $n=K$
- Operation at constant torque : $M=K$
- Under manual load setting : M
- Load as a function of speed squared Mv^2

Visualisation module :

- Visualisation of speed , torque, power, load, test settings, in units chosen by the user.
- Alphanumeric alarm display.

Velocity measurement :

- Rotational velocity input allowing configuration for up to 500 pulses per revolution.

Available inputs / outputs :

- Outputs (0 to 10 V) for relay of speed, torque and load percentage values.
- Inputs (0 to 10 V) for extrnal definition of settings (speed, torque, load...)
- Digital output of alarm signals.
- Digital input allowing external definition of operating modes.
- RS232C / 485 Interface with controlling PC, for communication of all settings and measured values.

Package contents :

- Management and visualization unit : rack 19", 3U, LCD screen, weight : 4.5 kg.
- Remote power module, dimensions 300 x 300 x 250, weight : 7 kg. (RRN104D only)
- 220 V power supply cable.
- Sub D connector.
- User manual.
- Option : Digital signal conditioner for torque measurement

Torque measurement :

- Analog input (0 to 10 V) or digital input (using digital signal conditioning).

Available alarm settings :

- Excess speed.
- Flow of loading brake cooling water.
- Temperature of loading brake cooling water.
- Loading brake electrical circuit (open-circuit, short-circuit conditions)

Settings :

- Electric loading brake (réf: RRN104D) : power supply is regulated by a remote control module
- Hydraulique loading brake (réf: RRN104) : the rack directly regulates a 0 to 10 V command signal (driving a valve).

RRN104-UKP-10-02

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