

PRESSURE REGULATING BENCH ON WATER

REFERENCE : MP114B



Non contractual photo

SERVICE : POWER SUPPLY: 380 V TRI - 50 HZ - 0.25 KW (OTHER VOLTAGE ON REQUEST) REQUIRES COMPRESSED AIR SUPPLY 6 BAR, 6 NL / H (NOT INCLUDED) PC COMPUTER NOT SUPPLIED
DIMENSIONS : 1500 X 650 X 1900 MM

WEIGHT : 100KG

The experimental device consists of a pressure measurement on the analog sensor line, a centrifugal pump looping on a tank of 50 liters through a proportional pneumatic valve for regulating the water flow controlled by the regulator. A bypass circuit can cause a flow leak that the regulator will compensate by changing the opening of the valve to maintain the pressure in the circuit.

Educational Objectives :

- Pressure regulation (1st order process)
- Study of the static response
- Open loop and closed loop identification
- Reproducible disturbances of the set quantity
- Recovery of the measurement and the power output of the regulator on the front of the box by secure plugs

Technical specifications :

- A launching tank
- Stainless steel centrifugal pump
- Proportional pneumatic valve
- A P / I converter
- A pressure sensor, 4-20 mA output
- A manometer
- A float flowmeter
- A set of manually operated valves
- A pressure disrupter circuit
- A digital regulator
- Universal input: TC, Pt100, mA, mV, V, Hz
- 4-20 mA control output
- Triple display output / setpoint
- Regulatory algorithm: P, PI, PID, self-adaptive
- RS485 communication card

OPTIONS :

Acquisition module This module is composed of: - RS485 / RS232 converter for PC acquisition - Windows operating software for reading PID parameters, drawing of curves, configuration of the remote controller and archiving of values.