FLOW CONTROL BENCH

REFERENCE : MP116

Non contractual photo

SERVICE : POWER SUPPLY 380 V TRI - 50 HZ - 0.37 KW REQUIRES COMPRESSED AIR SUPPLY 6 BAR, 6 NL / H (NOT INCLUDED) COMPUTER FOR USING THE SOFTWARE DIMENSIONS : 1500 X 500 X 1700 MM

WEIGHT : 80 KG

The device consists of a flow measurement per diaphragm and differential pressure sensor, a centrifugal pump looping on a tank of 70 liters through a proportional pneumatic valve for regulating the flow of water controlled by the regulator. A bypass circuit can cause a flow leak that the regulator will compensate by changing the opening of the valve.

Educational Objectives :

- Characterize the components of a flow control loop
- Study the static response of the system
- To study the reaction of the corrector an open and closed loop
- Measure flow rates indirectly (pressure reducing device and differential pressure sensor and square root extractor)

Technical specifications :

- A launch tank made of PE
- A stainless steel circulation pump
- Proportional pneumatic valve
- A P / I converter
- An altuglas diaphragm
- Differential pressure sensor, 4-20 mA output
- A square root extractor
- Two float flowmeters (measurement and disturbance)
- A set of manually operated valves
- A disturbance circuit
- An ASCON digital controller
- Universal Input: TC, Pt100, ?T, mA, mV, V, Hz
- 4-20 mA control output
- Triple display output / setpoint
- Regulatory algorithm: P, PI, PID, self-adaptive
- RS485 communication card
- A power box
- Module mounted on stainless steel frame with aluminum nuts
- Resumption on the front panel of the regulator power output and measurement by double secure well terminals

OPTIONS :

RS485 / RS232 converter for PC acquisition Windows operating system allowing: reading PID parameters the plot of the curves the configuration of the remote controller archiving values

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