

Modular control and regulation unit

DESCRIPTION

- This unit is designed to study various types of control loops for water:
 - Temperature
 - Level
 - Flow rate
 - Pressure
- Possible to study loops singly or in combination.
- The student assembles the sensor(s) and actuator(s) in order to create a regulation loop.
- Possible to use 1,2,3 or 4 regulators according to the number of control loops created.
- Control of all regulators through software (possible to export files through MATLAB type software).
- The unit is delivered with technical documentation, software, and a working license.
- This unit is designed for various levels of study.



SUGGESTED APPLICATIONS

- Study of various types of regulation loops
- Study of various types of sensors
- Study of various types of actuators
- Mechanical assembling and wiring

PRESENTATION

The unit comes with 6 cases :

- 1 "actuator-case" : 2 diaphragms, 2 electric valves
- 1 "temperature sensor case" : 3 thermocouples (type t,c,k) , 1 pt 100
- 1 "flow rate sensor case" : 1 axial turbine, 1 venturi (with differential pressure sensor)
- 1 " pressure sensor case" : 1 relative pressure, 1 absolute pressure, 1 differential pressure
- 1 " level sensor case " : 1 capacitive, 1 ultrasonic, 1 float
- 1 case of tubes including various lengths, knees, fixings, manual valves

The unit includes a thermoregulated group, and two plates for mounting the elements of the loops.

Four regulators are mounted on the front wall with inlet and outlet mounted on safety plugs.

The supervision software provided can control these regulators.

ENERGY

Air : Compressed - 6 bars (90 psi) maximum

Water : 10L/min – 3 bars (44 psi)

Electricity : 230 V single-phase