

## STUDY OF TEMPERATURE REGULATION BY PID



Modules (H-250mm). Frame : H610mm - L500mm.

Powered by 230VAC sector 1.5m cord.

### EDUCATIONAL OBJECTIVES

- Learn about and wire a system of temperature regulation by PID.
- Study, configure, and control a PID regulator.
- Study an analogue signal 4-20mA.
- Study a PT100 temperature sensor signal.
- Use a dimmer 230V, 4-20mA.

### TEACHING RESOURCES STUDENT & TEACHER

#### Proposed Practical Works

- Creation of the complete wiring diagram of the temperature regulation system.
- Configuration of the PID regulator for an analogue signal 4-20mA.
- Temperature regulation according to several set points.

#### Comprises

- 1 DC power supply module 230V AC, 24V DC - 3A.
- 1 PID temperature regulator module. Self-adjusting and manual. 4-digit display for set point, input and output 4-20mA. Binary alarm output.
- 1 PT100 temperature sensor module. Three wires.
- 1 PT100 signal converter module, 4-20mA.
- 1 Indicator light module 230V AC
- 1 Single-phase power dimmer module. Variation of the thyristor conduction angle according to the control current 4-20mA.
- 1 Heating unit module equipped with a 60W lamp powered at 230VAC. Thanks to two supports, the temperature sensor can be put into the unit.
- 1 set of safety leads for carrying out the different practical works. Mains power supply 230V - 50/60Hz. 3-metre lead with plug 2P+E.

ref. QUICK-K with frame

ref. QUICK-K-N without frame

ref. QUICK-KS communicating with frame

ref. QUICK-KS-N communicating without frame

