

## PID AND ON/OFF REGULATION TRAINING SUITECASE

Discover quickly and easily the PID and ON/OFF regulation with this compact and intuitive solution. This training suitcase is ideal for an introduction to your students!

Safe wiring on 4mm terminals. Safety leads and power supply cable are provided. Component identification information and other technical characteristics are printed on the faces.

A regulator is the controlling device in a regulation loop, it allows the control of a process (boiler, compressor, pump, etc.). It receives a 4-20mA signal from a sensor, image of the regulated quantity (temperature, pressure, flow rate, etc.), compares it to the set point (pre-programmed) then adjust the control.

The VAL-REG-C also offers, via the included software, the real time visualization on PC and the retrieval of data. It also allows configuration of the controller through the USB connexion.

### EDUCATIONAL OBJECTIVES

- Understanding of the temperature control chain wiring.
- Understanding of the operating principle of each of the components
- Understanding of the operating principle of a 4-20mA signal
- Understanding of the advantages and disadvantages of PID regulation compared to ON/OFF action

### Proposed practical works

- Identification of the components and drawing of electrical diagrams.
- Wiring of the temperature regulation chain.
- Configuration of a regulation controller.
- Measurement of the 4-20mA analogue signal.
- Comparison of a process controlled by PID and On/OFF action
- Connection to the PC for configuration and data visualization

### COMPONENTS

- 1 RCCB 30mA
- 1 regulation controller PID / ON-OFF action
  - 1 4-20mA input
  - 1 4-20mA output
  - 1 relay output
  - 1 alarm led light
  - 1 USB connection for the computer
- 1 heating lamp.
- 1 PT100 thermal sensor
- 1 transducer PT100/4-20mA.
- 1 4-20mA voltage dimmer.
- 1 data visualisation software.



ref. VAL-REG-C

DELIVERED WIRED  
AND SET

TEACHING RESSOURCES  
STUDENTS / TEACHER



Case with ergonomic handle.  
Dimensions 534 x 374 x 190mm.  
Supply by power cord 230V-2P + E.