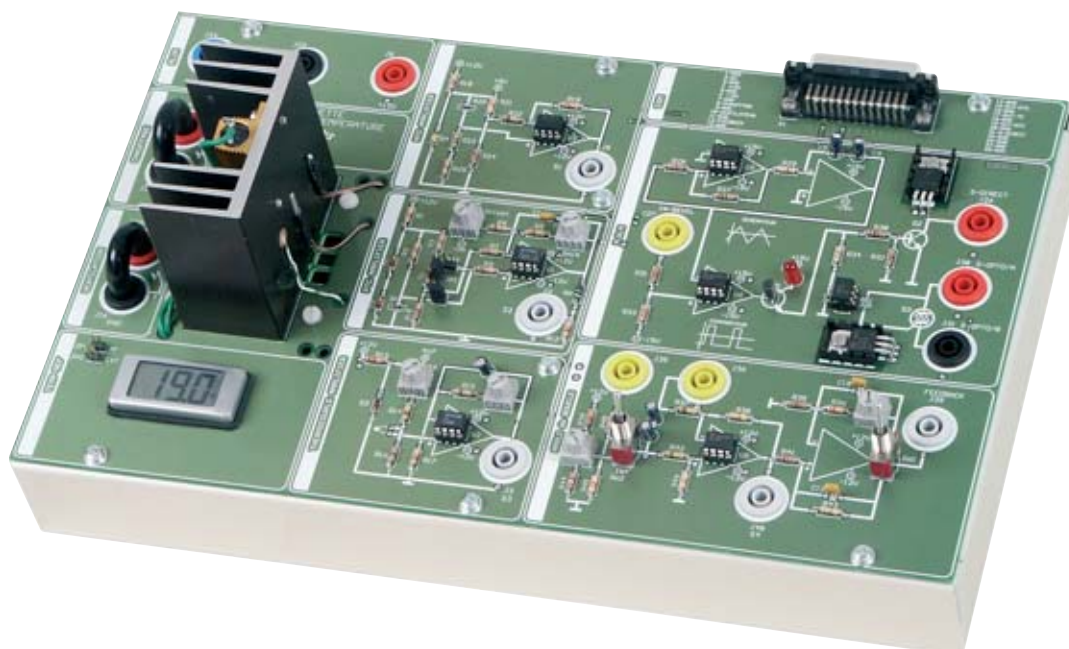


Temperature sensors and heating control



OPERATIONS DESCRIBED IN THE INSTRUCTIONS

- Calibration of PT100, CTN, and J probes
- Comparison of the linearity and response times of the three sensors.
- Study of 'all or nothing' control with continuous and intermittent heating, including the impact of an air outlet on the sensors.
- Study of closed-loop control and impact of loop gain.

CHARACTERISTICS

- +15V / -15V DC power supply
- Equipped with a DB25 male plug to connect to the PC interface.
- Dimensions : 330 x 200 x 50mm
- Weight : 1kg

ref. CAPTEMP

This model includes 3 temperature sensors: NTC thermistor – J thermocouple – PT100 platinum probe. These sensors are attached to a metal base heated by a resistance or cooled by a built-in fan. The resistance and fan are controlled separately by short circuiting two terminals. The screen-printed front panel shows actual cabling of electronic circuits such as amplifiers and automated temperature control.... All the components are surface-mounted to facilitate signal capture.

Each of the three analog sensors is connected to an amplifier to suit its voltage, impedance, and linearity. The output levels of the three amplifiers are all calibrated at 10mV/°C to facilitate comparisons of accuracy and thermal inertia.

Two temperature control systems may be studied: all or nothing heating by hysteresis circuit or proportional heating with a variable gain automatic control loop. The heating "power" circuit is either powered by transistor-controlled direct current or by Triac-controlled 15VAC alternating current. A digital thermometer provides a continuous readout of heating element temperature.

OPTION – DATA ACQUISITION SOFT

This option consists of an interface unit, a connecting cable, and software.

This software records the temperature readouts for the PT100, NTC, and J sensors on the SENSOR model and displays them on the computer screen. Characteristics such as the "all or nothing" setting for heating and fan power supply may also be displayed on the screen.

characteristics

- On-screen temperature display for the 3 sensors.
- On-screen display of the fan and heating control signal characteristics.
- Configurable acquisition time.
- Zoom function.
- Cursor function x and y axes configurable
- (Scale, notation, Max and Min values)
- Curve and background colours configurable.
- Print characteristics after page layout configuration.
- Acquisition data recovery in spreadsheet form

SOFTWARE AVAILABLE IN ENGLISH AND IN FRENCH

ref. LOG-CAPTEMP

