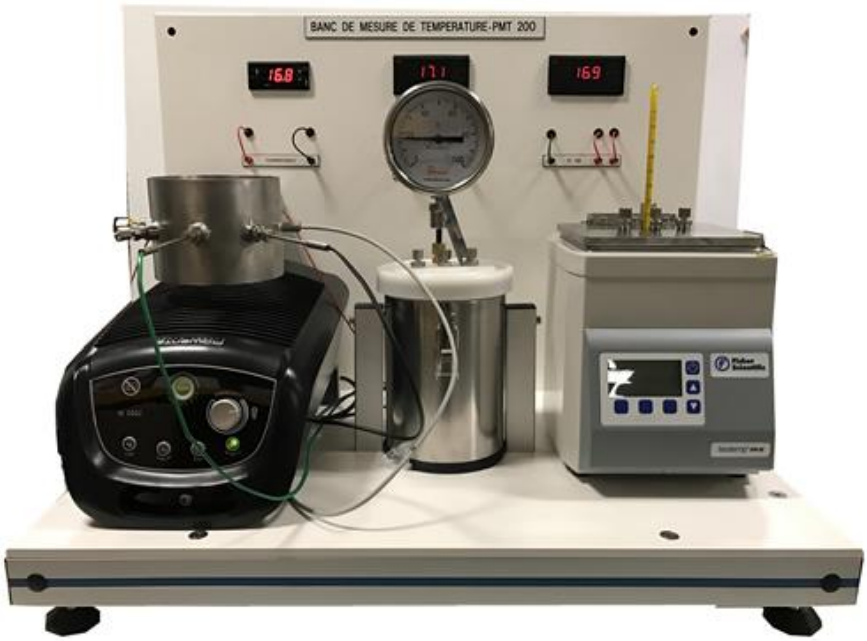
PMT200

TEMPERATURE MEASUREMENT METHOD TRAINER



Experimental capabilities

- **Study of 6 different types of temperature sensors.**
- **Visualization of measured quantities (voltage for the thermocouples, resistance for the Pt100 and the thermistors).**
- **Using physical quantity conversion tables / measured value.**
- **Study of different errors.**
- **Calibration of a sensor-indicator compared to a reference.**

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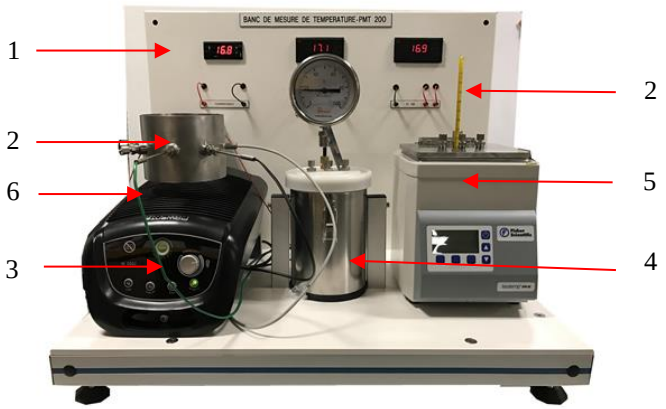
PMT200

Operating principle

The PMT200 bench allows placing the temperature sensors in different environments (cold water, hot water, hot air).
The user himself performs the wiring of the various temperature sensors.
The system is designed to allow the user to perform temperature measurements via a programmable indicator (direct temperature display) and through a multimeter, providing the opportunity to study the physical phenomenon involved for measurement (resistance, emf).
The robust design of this equipment makes it perfectly suited for school use.
Its anodized aluminum structure gives it great robustness as well as a great flexibility of integration into your premises.
The manufacture of this equipment meets the European machine directive

Illustrations



Technical details

1. **Digital multimeter**
   Three digital indicators
   Configuration front panel
   Connecting sensors with rope Ø =4 mm

2. **Sensors**
   Thermocouples K and J
   Pt100
   Thermistor
   Two type of thermometer

3. **Fan / Heater**
   Fan speed controller

4. **Adiabatic Vase**
   Dewar type vase for measuring the point 0°C

5. **Water bath heater**
   A thermoregulator for measuring hot water up to 90°C

6. **Base for the sensors**

Services required

- Power supply: 230 V single phase - 50 Hz
- Electrical supply Type: Phase + Neutral + Earth
- Water disposal : at ground level
- Water capacity: 5 L
- Dimensions: (LxWxH mm): 800 x 700 x 600
- weight (Kg): 35

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Lab exercises
- Technical documentation of the components
- Wiring diagram
- Certificate of conformity CE

Options included

- Digital multimeter to study the raw signals
- Sling thermometer to study the humidity of the air

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