

Product Name :

Temperature Measurement and Calibration

Product Code :

Dynamics Lab0006

Description :

Temperature Measurement and Calibration

Technical Specification :

Temperature Measurement and Calibration

- A bench top unit comprising a hypsometer /hot water bath and ice flask which generate accurate fixed points and variable temperatures
- An accurate platinum resistance thermometer with five point calibration certificate and temperature indicated directly in °C is included for reference.

Key Features:

- Thermometric properties (physical changes due to temperature) of different sensors are investigated
- Condensing vapour (using a hypsometer) provides an accurate fixed point for calibration
- Stirred hot water bath provides variable temperatures
- Reference with calibration supplied
- All electrical sensors can be logged using a PC (optional teaching software available)

Description:

A benchtop unit designed to introduce students to temperature, temperature scales and commonly available devices to measure temperature. The equipment comprises a hypsometer/hot water bath and ice flask to generate accurate fixed points (the condensation point and triple point of water) and variable

temperatures. Temperature sensors having different thermometric principles and characteristics are supplied. An accurate platinum resistance thermometer with five point calibration certificate and temperature indicated directly in °C, is included for reference. The temperature of the condensing water vapour in the hypsometer can be determined accurately using steam tables, provided that an accurate barometer (not supplied) is available. The water level is simply raised to change the hypsometer into a variable temperature water bath. The unit is designed for safe operation with insulation surrounding the vessel and a protected steam vent. A radiation shield surrounds the sensors to be calibrated to minimise measurement errors. A common carrier allows all sensors to be transferred simultaneously from ice flask to the hypsometer/water bath

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