

**Product Name :**  
Guarded Hot Plate with Data Acquisition**Product Code :**  
HEMT0010**Description :**

Guarded Hot Plate with Data Acquisition

**Technical Specification :**

The basic experiments bench top unit is for testing of thermal conductivity of non-metallic materials using guarded hot plates bases on.

The equipment consists of a central heater with hot plates, a guard ring with heater and hot plates, and two water-cooled cold plates.

Two specimens are inserted between the hot plates and cold plates.

The assembly is encased in a test cabinet with insulation.

The cold plates are clamped together to provided a uniform pressure.

The microprocessor-based instrumentation is well protected in the housing.

The experimental unit is equipped with temperature sensors at the inlet and outlet of the air duct.

The air velocity is measured to determine the airflow rate.

Heating power and flow rate are adjusted and displayed via the software.

The software consists of software for system operation and for data acquisition and educational software. is connected to the PC via USB.

A service module provides power supply and heater control unit, power measurement unit and temperature indicators.

**FEATURES:**

Determination of thermal conductivities  $k$  for different material at different temperatures

Thermal conductivity of solid can be calculated.

Ideal for group studies & demonstration.

Panelized instruments mounted on a control panel.

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Easy to operate.

Functions of the software: educational software, data acquisition, system operation

Useful for institutions, research laboratories & insulating powder manufactures

**SPECIFICATION:**

The unit requires outside water supply.

Cold plates

Hot plate :

Hot plate heater: 500 W with control knob.

Guard ring heater: 500 W with control knob.

Measuring ranges :

Temperature: 2x 0...325°C

Heating power: 0...450W

Required for Operation :

230V, 50Hz, 1 phase

230V, 60Hz, 1 phase; 120V, 60Hz, 1 phase

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