Linear Heat Conduction Study Bench Apparatus

(EDC-HT-20)

EXPERIMENTAL DATA:

- Study and calculations of linear heat conduction.
- Calculation of the thermal conductivity (k value).
- Study of the effectiveness of thermal paste.
- Study and calculations of thermal resistances (R value) in series.
- Study of thermal lag.

DESCRIPTION:

This experiment has a solid brass bar of circular cross-section, made in two sections with an transposable middle section. The first brass section includes temperature sensors and the electric heater as heat source. The second brass section includes a small water-cooled chamber (heat sink) and more temperature sensors.

Optional Software is available for Data Acquisition and Control Function.

SPECIFICATIONS:

- Heater for heating purpose.
- 4 types of middle changeable section.
- Self-contain place for placing different middle sections.
- LCD display for temperature.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 600 X 350 X 600 approx.
- Weight: 22 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-HT-20.
- 1 x Instructional Manual.

TECHNICAL DATA:

- The transposable middle sections are of different metals:
  - Brass.
  - Aluminum.
  - Stainless steel.
  - Copper.
- Heater:
  - 0 - 120W.
- Temperature sensors: 8.
- External Water flow.
- Quick fitting for water flow.
- 230V AC 50 Hz.