Linear and Radial Heat Conduction Study Unit Apparatus

(EDC-HT-037)

EXPERIMENTAL DATA:

- Linear heat conduction:
  - Study of temperature profiles for different materials.
  - Study of the temperature profile in case of a disturbance.
  - Study of the thermal conductivity λ.
- Radial heat conduction:
  - Study of the temperature profile.
  - Study of the thermal conductivity λ.

DESCRIPTION:

The apparatus contains both the linear and radial shape for study of heat transfer. For linear study specimen of different diameter and material is given. For radial single disc is given for experimentation. Electrical heater is used for heating purpose. In radial tap water is used for cooling purpose.

Optional Software is available for Data Acquisition and Control Function.

SPECIFICATIONS:

- Study of heat conduction in solid bodies.
- Linear heat conduction:
  - 3 measuring objects, heating and cooling element.
  - 9 temperature measuring points.
- Radial heat conduction:
  - Brass disc with heating and cooling element.
  - 6 temperature measuring points.
- Cooling done by using tap water.
- Electrical Heaters.

TECHNICAL DATA:

- Linear heat conduction
  - 25Dx30L mm, steel.
  - 15Dx30L mm, brass.
  - 25Dx30L mm, brass.
  - Heater: 140W.
- Radial heat conduction
  - 110Dx4L mm.
  - Heater at center of the disc: 125W.
  - Cooling coil on the outer edge of the disc.
- 230V, 50Hz, 1 phase.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 650 X 400 X 300 approx.
- Weight: 19 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-HT-037.
- 1 x Instructional Manual.