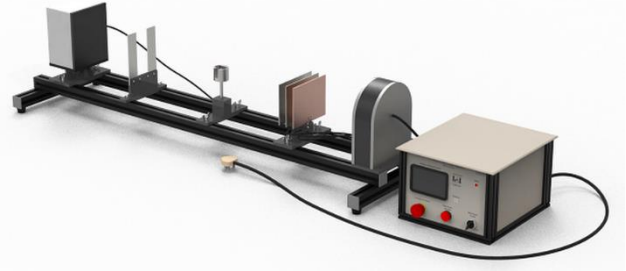


## Radiant Heat Transfer Apparatus (EDC-HT-21)

### EXPERIMENTAL DATA:

- Lambert's direction and distance law.
- Stefan-Boltzmann law
- Study of:
  - Radiation absorption.
  - Radiation reflection.
  - Radiation emission.



### DESCRIPTION:

Thermal radiation is a non-material-bound energy transference by means of electromagnetic oscillations in a convinced wavelength range. Anybody with a temperature above zero Kelvin emits radiation known as thermal radiation. Thermal radiation includes UV radiation, light radiation and infrared radiation. Light radiation covers the wavelength range visible to the human eye.

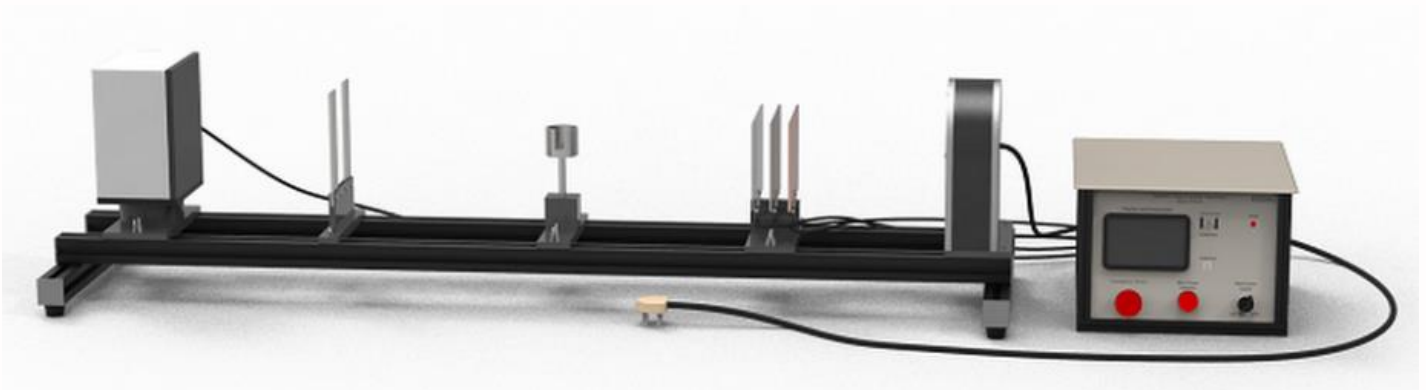
Optional Software is available for Data Acquisition and Control Function.

### DIMENSIONS AND WEIGHT:

- L x W x H (mm): 1500 X 350 X 300 approx.
- L x W x H (mm) Measuring box: 300 X 300 X 300 approx.
- Weight: 22 kg approx.

### SCOPE OF DELIVERY:

- 1 x EDC-HT-21.
- 1 x Instructional Manual.



## SPECIFICATIONS:

- Thermal radiator and thermopile for the examination of thermal radiation.
- Light source and luxmeter for the study of illuminance.
- Absorption plate and reflection plate with temperature sensor for the study of Kirchhoff's laws.
- Changeable radiant power of thermal radiator and light source.
- 3 color filters with holder (red, green, infrared), slit diaphragm.
- Luxmeter for measuring illuminance.
- Temperature sensor for measuring the temperature.
- Thermopile for measuring radiant power.

## TECHNICAL DATA:

- Thermal radiator:
  - Material: Black anodized.
  - Output: 400W at 230V.
  - Max. Achievable temperature: 300°C.
  - Radiant area, LXW: 200x200mm.
- Light source as light emitter:
  - Halogen lamp.
  - Output: 50W.
  - Luminous flux: 1185lm.
  - Color temperature: 2950K.
- Range of rotation on both sides: 0 - 90°.
- Optional illuminated surface:
  - Diffusing lens, LXW: 193x193mm or
  - Orifice plate, Ø 25mm.
- Optical elements to insert:
  - Slit diaphragm.
  - 3 color filters: red, green, infrared.
  - Absorption plate and reflection plate with temperature sensor, matt black lacquered.
- 230V AC 50 Hz.

