

Study of light and thermal radiation



DESCRIPTION

- This unit is delivered complete with instrumentation and includes a technical and instruction manual.
- Applicable to different levels and fields of study.
- Designed and manufactured to industrial standards.

SUGGESTED APPLICATIONS

Study of light and thermal radiation.

Demonstration of KIRCHOFF's law, LAMBERT's law and inverse square law.

Thermal and luminous energy as a function of distance.

Emission, absorption, reflection.

Investigation of the power delivered by a solar panel.

- **Guidance rails**
Anodized aluminium section - graduated
Mounted on adjustable feet.
- **Light source**
Mounted on a graduated support which can be rotated
with 20, 50, 75 W lamp – adjustable diffusion
- **Coloured filters**
- **Iris aperture plate** : the aperture can be varied
- **Light Meter** : ranges 0 to 100 000 lux
Analogue output : 0-1 VDC
- **Solar panel 1,2 W/12 VDC**
Amorphous silicon
- **Energy dissipator and ammeter / voltmeter**
- **Heat source**
Mounted on a graduated rotary support
Heating element : 675 W
Black body radiation source
Variable SSR power
PID numerical control
- **Metal plates equipped with surface Pt 100 Ω probes**
- **Radiometer** : ranges 0 to 1000 mW/cm²
Analogue output 0-1 VDC
- **Instruments**
Surface temperature indicator
Luminous intensity and heat energy indicator
- **Infrared thermometer**, output : 4-20 mA with laser aiming device

UTILITIES

Electricity : 230 V Single-phase - 50/60 Hz - 16 A

DIMENSIONS

Length : 2000 mm
Width : 500 mm
Height : 900 mm
Weight : 30 kg