

MICHELSON INTERFEROMETER

Mod. F-MICH/EV

DESCRIPTION

Interferometer is a basic instrument used to measure wavelengths, index of refraction and temporal coherence of optical rays, in an accurate way.

Michelson interferometer uses the interference phenomenon to measure the wavelength of light of a particular monochromatic source.

The instrument described in this catalogue outputs interference fringes by splitting a ray into two beams. Each beam is forced to cover a different path, then they will rejoin so that they can interfere according to the difference in path length. This enables a precise measurement of the wavelength of monochromatic light.

When a ray of coherent light enters the beam-splitter, it is split into two beams, then these two beams travel in different directions and they are reflected to each other through two mirrors that create interference figures after they have been combined and superimposed.



TRAINING PROGRAM

- Determining the wavelength of monochromatic light
- Understanding the phenomenon of interference of light as the difference of path varies

TECHNICAL SPECIFICATIONS

- Michelson interferometer:
 - Heavy metal base
 - Mounts for optical elements, with fine regulation of inclination
 - Mechanic element/structure for the micrometric translation of optical elements
 - High reflectivity round mirrors: 25 mm diameter
 - Non-polarizing cubic beam-splitter; dimensions: 20 x 20 x 20 mm; reflection/transmission: 50:50
 - Adjustable convex plate lens f: 20 mm
- Red laser diode with adjustable support:
 - optical element: laser diode
 - power: 1 mW
 - wave length: 635 nm
 - dimension: 25 mm x 110 mm (diameter x length)
 - power supply unit: 12 Vdc
- Projection screen (30x30 cm) with support
- Millimetric graph paper

**SUPPLIED WITH
THEORETICAL - EXPERIMENTAL
HANDBOOK**

