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RoHS   ISO 9001

LEOI-21 Universal Interferometer of Michelson and Fabry-Perot

Description

This equipment combines the historically important Michelson interferometer and the high resolution Fabry-Perot interferometer in one rigid and compact structure. Michelson interferometer is still an important instrument in today's physics laboratories and is used for observing two-beam interference phenomena. Fabry-Perot interferometer is for observing multiple-beam interference and measuring the fine structure of spectrum. Measurements are precise in two modes of operation. Switching between the two modes of operation and aligning components are relatively simple. This instrument is suitable for physics teaching at universities and colleges.

Feathure

Two Interferometer Modes
  Rigid, Compact and Precise
  Complete Solution

Application
1. Two-beam Interference observation
2. Equal-inclination fringe observation
3. Equal-thickness fringe observation

4. White-light fringe observation
5. Wavelength measurement of the Sodium D-lines
6. Wavelength separation measurement of the Sodium D-lines
7. Measurement of the refractive index of air
8. Multi-beam interference observation
9. Measurement of the He-Ne laser wavelength
10. Interference fringe observation of the Sodium D-lines

Specification

Flatness of Beam Splitter and Compensator	0.05 λ
Coarse Travel of Mirror	10 mm
Fine Travel of Mirror	0.25 mm
Fine Travel Resolution	0.5 μm
Fabry-Perot Mirrors	30 mm (dia), R=95%
Wavelength Measurement Accuracy	Relative error: 2% for 100 fringes
Dimension	500×350×245 mm

Part list

Description	Qty
Interferometer Main Frame	1
Ground Glass Screen	1
Alignment Aperture	1
Instruction Manual	1
Sodium-Tungsten Lamp (optional)	Sodium lamp: 20 W; Tungsten lamp: 30 W adjustable
He-Ne Laser (optional)	0.7-1 mW @632.8 nm, includes laser tube holder
Air Chamber with Gauge (optional)	Chamber length: 80 mm; Pressure range: 0-40 kPa
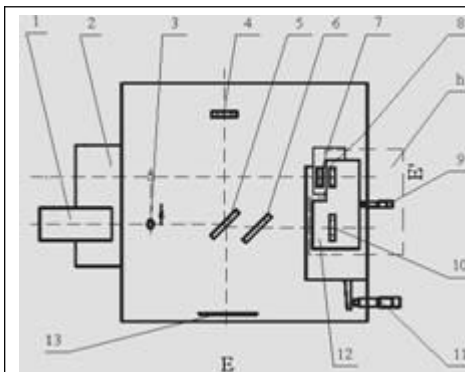
1. He-Ne laser   8. F-P movable mirror
2. Side stage   9. Coarse micrometer
3. Beam expander   10. Movable mirror
4. Fixed mirror   11. Fine micrometer
5. Beam splitter   12. Movable stage
6. Compensator   13. Glass screen
7. F-P fixed mirror   E/E': Eye observation