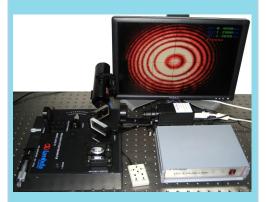


LEOI-22 Precision Interferometer

- Three Modes
- Stable Base for Precise Measurement
- Compact and Lightweight
- Complete Solution
- He-Ne Laser, Sodium-Tungsten Lamp, and Air Chamber Included
- Optional VGA Video Camera for Fringe Image Display and Projection



Fringe image acquired by color camera



This equipment combines the historically important Michelson interferometer, the high resolution Fabry-Perot interferometer, and the useful Twyman-Green interferometer in one unit. 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. Twyman-Green interferometer is used to measure the defects in optical components such as lenses, prisms, and windows etc.

Measurements are precise in three classical modes of operation. Switching between the three modes of operation and aligning components are very simple, as this complete set of high quality components is carefully mounted on a heavy, stable base. Using an optional color camera, interference fringes can be acquired to a VGA display or a projector for real-time lecture demonstration.

A lambda scientific

Experimental Contents

- 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. Measurement of the refractive index of a transparent slice
- 9. Multi-beam interference observation
- 10. Measurement of the He-Ne laser wavelength
- 11. Interference fringe observation of the Sodium D-lines
- 12. Demonstrating the principle of a Twyman-Green interferometer
- 13. Interference fringe acquisition by color camera for VGA display or projector (optional)

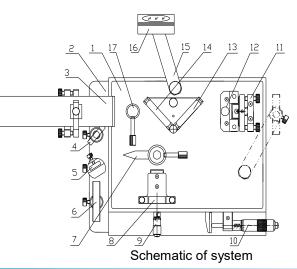
Specifications

Flatness of Beam Splitter & Compensator Plate	0.05 λ		
Minimum Travel Reading	0.00025 mm		
Coarse Travel of Mirror 1	10 mm		
Fine Travel of Mirror 2	0.25 mm		
Fabry-Perot Mirrors	30 mm (dia), R=95%		
Wavelength Measurement Accuracy	Relative error: 2% for 100 fringes		
Sodium-Tungsten Lamp	Sodium: 20 W; Tungsten: 35 W (Adjustable)		
He-Ne Laser Output	0.7 ~ 1 mW at 632.8 nm		
Air Chamber with Gauge	Chamber length: 80 mm; Pressure range: 0-40 kPa		
Overall Dimension	350 mm×350 mm×245 mm		
Weight	Approx. 35 Lb		
Camera with VGA port (Option 1)	Detailed specs posted on website		

Part List

DescriptionQty1Main interferometer12Ground glass screen13Extension arm14He-Ne laser15Laser holder16Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples212Hand tally counter1			
2Ground glass screen13Extension arm14He-Ne laser15Laser holder16Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2		Description	
3Extension arm14He-Ne laser15Laser holder16Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2	1	Main interferometer	1
4He-Ne laser15Laser holder16Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2	2	Ground glass screen	1
5Laser holder16Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2	3	Extension arm	1
6Sodium-Tungsten lamp17Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2	4	He-Ne laser	1
7Air chamber with gauge18Two-in-one screen19Transparent slice clip110Beam expander111Samples2	5	Laser holder	1
8Two-in-one screen19Transparent slice clip110Beam expander111Samples2	6	Sodium-Tungsten lamp	1
9Transparent slice clip110Beam expander111Samples2	7	Air chamber with gauge	1
10Beam expander111Samples2	8	Two-in-one screen	1
11Samples2	9	Transparent slice clip	1
	10	Beam expander	1
12 Hand tally counter 1	11	Samples	2
	12	Hand tally counter	1

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- 1. Main stage
- 2. Side stage
- 3. He-Ne laser
- 4. Beam expander
- 5. Transparent slice clamp
- 6. Ground glass screen
- 7. Rotational pointer
- 8. Fixed Mirror
- 9. Presetting micrometer
- 10. Fine micrometer
- 11. Movable mirror
- 12. Mounting holes
- 13. Compensator 14. Beam splitter
- 15. Extension arm
- 16. Two-in-one screen
- 17. Beam expander

Note: above product information is subject to change without notice.