



OMEGA TYPE ES-453.1 Experimental Set-Up has been designed specifically to determine the magnetostriction in an iron rod using Michelson interferometer.

The set-up is complete in all respect and requires no other apparatus.

Practical experience on this set-up carries great educative value for Science and Engineering Students.

OBJECT:-

01. To study the magnetostriction in an iron rod using Michelson interferometer.

FEATURES

The complete Experimental Set-up consists of the followings:

01. **MICHELSON INTERFEROMETER:** With the aid of two mirrors in a Michelson arrangement, light is brought to interference. Due to the magnetostrictive effect, one of the mirrors is shifted by variation in the magnetic field applied to a sample, and the change in the interference pattern is observed.

1.1 **Beam splitter:** partially coated, Coating material: Al + SiO₂.

1.2 10x microscope

02. **ELECTROMAGNET :**

Length of the Coil : 120 mm

Winding material : Copper

No. of turns :

03. **CONSTANT CURRENT SOURCE (0 - 4Amp.)**

Current range : 0 - 4Amp.

Load regulation : Better than 0.5% of the highest (No Load to Full Load) current 4 Amp.

Line regulation : Better than $\pm 2\%$ (For $\pm 10\%$ Mains Variation) current 4 Amp.

Metering : 3 ½ digit 7 segment LED DPM.

04. **DIODE LASER WITH POWER SUPPLY.**

MAXIMUM OUTPUT : 0.5 mW

Wave length : 670 nm visible red

Power supply : Included with ON/OFF switch working on 230VAC.

05 Weight : 12 Kg. (Approx.)

06 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.