



**OMEGA TYPE ES-283** Experimental Set-Up has been designed specifically for experiments with Fresnel's Bi Prism (1) To determine the wave length of sodium light (2) To determine the thickness of Mica Sheet. The set-up consists of Optical bench with uprights, Sodium light source, Bi-prism, Convex lens, Slit, Micrometer eye piece, Incandescent lamp, etc.

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 determine the wave length of sodium light with the help of Fresnel's Bi-prism.
- 02 To determine the thickness of mica sheet with the help of Fresnel's Bi-Prism.

#### FEATURES

The complete Experimental Set-up consists of the followings:

##### 01 BI-PRISM ASSEMBLY :

Comprising of the following :

- 1.1 **OPTICAL BENCH** : Two 150 cm long steel rods 3/4" dia. forming a bench with end supports having levelling screws. One of the two steel rods is graduated in cm and mm. It has four riders, two with transverse motion.
- 1.2 **BI-PRISM HOLDER** : It has fine radial motion operated by fine pitch screw.
- 1.3 **LENS HOLDER** : Spring action type having well ground stainless steel jaws.

1.4 **MICROMETER EYE PIECE** : A Ramsden 10X eye piece carried on a slide which moves along a micrometer screw. The movement is read on a 30-0-30 mm steel scale and directly on micrometer head to .001 cm. No backlash.

1.5 **OPTICAL SLIT** : Optically true, precision ground stainless steel jaws. The jaws open uniformly all along through the milled head.

02 **FRESNEL'S BI-PRISM** : Optically worked made from Crown Glass, 50 X 40 mm size.

03 **DOUBLE CONVEX LENS** : 50mm diameter and F.L.10cm

04 **SODIUM LIGHT SOURCE** : Sodium light source complete with sodium lamp 35 watt with vacuum jacket, Transformer & Wooden Box having four holes with slide covers one each on every side at different heights.

05 **LAMP HOUSE ON HEAVY DUTY** : For white light square stand with lamp

06 Retort stand with clamp : For mica size 2x4cm. Retort Stand Size 4 x 6" Rode size 18"

07 Reading Lens:40/50 mm diameter with handle.

08 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.

## OMEGA ELECTRONICS

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