



**OMEGA TYPE ES-214** Experimental Set Up has been designed specifically for the determination of PLANCK'S CONSTANT using SOLAR CELL (PHOTO VOLTAIC CELL) and three optical filters with the help of Wien's Radiation Law and to study inverse square law.

The set up is absolutely self contained 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 Planck's Constant by Solar Cell (photo voltaic cell) and three optical filters with the help of Wien's Radiation Law.
- 02 To compare illuminating powers of given source of light and verify the inverse square law\*. (\*second source is obtained using different voltage.)

#### FEATURES

The Set up consists of the following :

- 01 SOLAR CELL (PHOTO VOLTAIC CELL-).
- 02 Optical bench with four stands with transverse motion.
- 03 0-6V D.C. at 3A, continuously variable IC regulated and short circuit protected Power

Supply with coarse and fine voltage control.

- 3.1 Digital panel meter 3½ digit 19.99 Volt D.C.
- 3.2 Digital panel meter 3½ digit 19.99 Amp. D.C.

- 04 Three different colour optical filters.
- 05 D.C. Microammeter, 65mm round dial, mounted on Bakelite stand, to read 0-50uA.
- 06 One lamp 6V, 18W (light source) with lamp house .
- 07 Double convex lens dia 50 mm & F.L. 10 cm with lens holder
- 08 Weight : 12.1 Kg. (Approx.)
- 09 Dimension : W290 x H160 x D230.
- 10 The unit is operative on 230V ±10% at 50Hz A.C.
- 11 Adequate no. of connecting wires with 4mm plug at one end.
- 12 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