

TEMPERATURE COEFFICIENT OF RESISTANCE FOR PLATINUM, USING A PLATINUM RESISTANCE THERMOMETER, CALLENDER AND GRIFFITH'S BRIDGE

OMEGA TYPE ES-354



OMEGA TYPE ES-354 Experimental Set-Up has been designed specifically for measurement of Temperature Coefficient of Resistance for Platinum, using a Callender and Griffith's Bridge, Platinum Resistance Thermometer, Galvanometer, Battery Eliminator 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

- To measure the Temperature Coefficient of Resistance for Platinum, using a Platinum Resistance Thermometer, Callender and Griffith's Bridge.
- 1.1 Determination of electrical zero.
- 1.2 Determination of resistance per unit length (p) of the bridge wire.
- 1.3 Determination of R2 and R1 at steam temperature and room temperature respectively.

FEATURES

The board consists of the following built-in parts:

- 01 Callander and Griffith's Bridge.
 - 01.1 Galvanometer 30-0-30, DRM-65 rectangular dial mounted
 - 01.2 Regulated power supply 0 5V D.C. at 0.5A, continuously variable regulated and short circuit `` protected
 - 01.3 Adequate no. of other electronic components.
 - 01.4 Mains ON/OFF switch, Fuse and Jewel light.
 - 01.5 The unit is operative on 230VAC ±10% at 50Hz.
- 02 Platinum Resistance Thermometer: Enclosed in a corning glass tube of approx. 50 cm length and 2 cm diameter. A fine platinum wire is wound on mica frame. Its resistance is approximately 2.8 ohms. The two platinum leads and two compensatory leads are connected to four terminals on a square block OMEGA TYPE PRT-195.
- 03 Stand for Platinum Resistance Thermometer
- 04 Glass Beaker 500ml
- 05 Thermometer 100°C
- 06 Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length 50cm.
- 07 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
- 08 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

09 Weight : 6.100 Kg. (Approx.) 10 Dimension : W 415 x H165 x D315

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

OMEGA ELECTRONICS