

**OMEGA TYPE ES-320** Hysteresis Loop Tracer has been designed specifically to have a precise knowledge of various parameters of ferromagnetic substances and the ability to determine them accurately are important aspects of magnetic studies. These not only have academic significance but are also indispensable for users of magnetic materials. This unit is self contained and does not require any other equipment except CRO.

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

### OBJECT

01. To study coercivity of material (Nickle, Soft Iron & Hard Steel)
02. To study saturation magnetisation of material (Nickle, Soft Iron & Hard Steel)
03. To study Retentivity of material (Nickle, Soft Iron & Hard Steel)

### FEATURES

The unit contains the following built-in parts :

01.  $\pm 12V$  D.C. at 100mA, IC Regulated Power Supply
  02. 10, 22, 35, 50, 65, 75, 90, 105 & 120V A.C. Power Supply at 1.5Amp.
  03.  $3\frac{1}{2}$  digits digital panel meter to read magnetic field in Gauss.
  04. A solenoid with former fitted on the platform for producing magnetic field.
  05. A pick up coil wound on former and fixed on acrylic fixture for picking up magnetic field for hysteresis loop.
  06. Two helical potentiometers to vary continuous Area Ratio and Demagnetisation.
  07. Two band switches to select different Flux Density (B) and Magnet Field.
  08. Two amphenol connectors, one for solenoid to give voltage and another for giving input from Pick-up-coil.
  09. Three potentiometers, one each to vary continuous phase, H. Balance and D.C. Balance.
  10. Three 4 mm terminals for Hysteresis Loop measurements.
  11. Three samples, one each of commercial Nickle, Soft Iron and Hard steel.
  15. Adequate no. of other Electronic Components.
  16. Mains ON/OFF switch, Fuse and Jewel light.
- \* Weight : 11.9 Kg. (Approx.)
  - \* Dimension : W 425 x H 190 x D 290
  - \* The unit is operative on 230V  $\pm 10\%$  at 50Hz A.C. Mains.
  - \* Adequate no. of patch cords stackable 4mm spring loaded plug length  $\frac{1}{2}$  metre.
  - \* Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
  - \* Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

### OTHER APPARATUS REQUIRED

- \* Cathode Ray Oscilloscope 20MHz.

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

## OMEGA ELECTRONICS

### India Sales

B-28, Fateh Singh Scheme , Opp. Rajputana  
Palace Sheraton, Jaipur-302006, INDIA  
Ph: +141-2375647 / 2379223  
Fax: +91-141-2204481

Email: [omega@sancharnet.in](mailto:omega@sancharnet.in);  
[info@omegaelectronics.net](mailto:info@omegaelectronics.net)  
Web: [www.omegaelectronics.net](http://www.omegaelectronics.net)

### Mfg./ Export/ Training

28 E & F, Malviya Industrial Area,  
Jaipur-302017, INDIA  
Ph: +91-141-2751136 / Fax: +91-141-2751559  
Mobile: +91-9414072336