



**55820** 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 3½ 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 aclyric 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 amphonel 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.
- 12 Adequate no. of other Electronic Components.
- 13 Mains ON/OFF switch, Fuse and Jewel light.
- 14 Weight : 11.9 Kg. (Approx.)
- 15 Dimension : W425x H190 x D290
- 16 The unit is operative on 230V  $\pm 10\%$  at 50Hz A.C. Mains.
- 17 Adequate no. of patch cords stackable 4mm spring loaded plug length ½ metre.
- 18 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
- 19 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

#### **OTHER APPARATUS REQUIRED :**

- 01 Dual trace CRO

Note: Specifications are subject to change.

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