



OMEGA TYPE ES-414 experimental set up has been designed specifically to study Biot-Savart's Law and hence study magnetic field along the axis of a current carrying circular coils and the dependence of magnetic field on coil diameter.

The setup is completely 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 study the magnetic field of a circular conductor as a function of distance along the axis of conductor.
- 02 To study the magnetic field of a circular conductor as a function of the loop current.
- 03 To study the magnetic field as a function of loop diameter.

FEATURES

The setup consists of the following parts

- 1.1 DC POWER SUPPLY : Output Voltage 0 - 2.5V
Output Current 0 - 20A
Digital Current meter DC 3½ Digit range 0 - 20Amp.
- 1.2 DIGITAL GAUSSMETER : Range 0-2KG
Resolution 1 G
Accuracy $\pm 0.5\%$
Temperature Up to 50°C
Display 3½ digit, 7 segment LED DPM
Hall probe InAs type with 5 Pin Connector
- 1.3 Mains ON/OFF switch and fuse with jewel light.
- 1.4 The unit is operative on 230VAC $\pm 10\%$ at 50Hz.
- 02 CIRCULAR COILS : Loop Diameter 20mm, 45mm and 60mm
Material Copper Wire Diameter 1.5mm
Loop Holder Rod Diameter 10mm
- 03 OPTICAL BENCH : Half Meter long Round Rod type, Graduated, with two Rider's with transverse motion.
- 04 Adequate no. of other accessories.
- 05 Good quality and reliable terminal / sockets are provided at appropriate places for connections and observation.
- 06 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.

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