



55867 Experimental Set-Up has been designed specifically to study the Faraday Effect and hence to determine the Verdet's Constant for a given substance.

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 Calibrate the electromagnet and determine the Verdet's constant of substances like Glyserine, Potassium Chloride, and Potassium iodide solutions.

FEATURES

The Complete Experimental Set-up consists of following items. :

- 01 ELECTROMAGNET : The electromagnet have the most widely used 'U' shaped soft iron yoke. The soft iron is of a special quality, structurally uniform, well machined and finished to meet the rigid standards also has tapered the pole pieces with bore of 1/2" along the axis of coils.
SPECIFICATIONS
FIELD INTENSITY : 7.5 KG at 10mm air-gap which Tapped pole pieces with bore 1/2" dia meter.
POLE PIECES : 50mm diameter.
ENERGISING COILS : Two, each a resistance of about 3.0 ohm.
POWER REQUIREMENT : 0-30V DC, 4A, its coils are connected in series.
- 02 CONSTANT CURRENT : Current range : 0 - 4 Amp.
POWER SUPPLY Load regulation : Better than 0.5% of the highest (No Load to Full Load) specified output current.
Line regulation : Better than $\pm 2\%$ of the specified output current. (For $\pm 10\%$ Mains Variation) .
Metering : 3 1/2 digit 7 segment LED DPM.
- 03 SODIUM LIGHTSOURCE : Sodium light source complete with sodium lamp 35 watts with vacuum jacket, Transformer & Wooden Box having four holes with slide covers, one each on every side at different heights.
- 04 VERNIER CALIPER : 05 Two Polaroid mounted on a graduated circular scale 3600 which can mounted on telescope and collimator by the help of three screws.
- 06 GLASS CUBE : (1) Three hollow cube made of glass size 38 X 38 mm., filled with Glyserine, Potassium Chloride and Potassium iodide solutions and sealed.
(2) One hollow cube is empty.
- 07 TELESCOPE (With stand) : It is a hollow metallic tube carrying an objective lens at one end which is achromatic and provided with rack and pinion focussing arrangement and with a cross wire arrangement and eye piece at other end. The eye piece used is of Ramsden type.
- 08 COLLIMATOR (With stand) : Hollow metallic tube carrying an adjustable vertical slit at one end on a collimating lens at the other end.
- 09 WOODEN BLOCK : Block of wooden size 3.5 X 6.0 X 9.5 cm. for glass cube.
- 10 WOODEN BLOCK : Block of wooden size L-37.5, W-13cm, T-7cm for electro magnet height adjust.
- 11 SPRIT LEVEL : 60/ 80 mm length.
- 12 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

Note: Specifications are subject to change.

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