

FARADAY EFFECT - MAGNETO OPTIC EFFECT

OMEGA TYPE ES-367



OMEGA TYPE ES-367 Experimental Set-Up has been designed specifically to study the Faraday Effect and hence to determine the Verdets 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 verdets constant of substances like Glysrene, 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

OMEGATYPE EMU-10 a special quality, structurally uniform, well machined and finished to meet the rigid

standards also has tapard the pole pieces with bhor of $\frac{1}{2}$ " along the axis of coils.

SPECIFICATIONS

FIELD INTENSITY : 7.5 KG at 10mm air-gap which Tappred 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 : 0-4Amp.

POWER SUPPLY Load regulation : Better than 0.5% of the highest OMEGATYPE CCP-30/4 (No Load to Full Load) specified output current.

Line regulation : Better than ± 2% of the specified output current.

(For ±10% Mains Variation)
Metering : 3½ digit 7 segment LED DPM.

03 SODIUM LIGHT SOURCE : 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 POLARIOD : Two Polaroid mounted on a graduated circular scale 3600 which can mounted on

telescope and collimator by the help of three screws.

05 GLASS CUBE : (1) Three hollow cube made of glass size 38 X 38 mm., filled with Glysrene, Potassium

Chloride and Potassium iodide solutions and sealed.

(2) One hollow cube is empty.

06 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 focusing arrangement and with a cross wire arrangement

and eye place at other end. The eye piece used is of Ramsden type.

07 COLLIMATOR (With stand) : Hollow metallic tube carrying an adjustable vertical slit at one end on a collimating lens at the

other end.

08 WOODEN BLOCK : Block of wooden size 3.5 X 6.0 X 9.5 cm. for glass cube.

09 WOODEN BLOCK : Block of wooden size L-37.5, W-13cm, T-7cm for electro magnate height adjust.

10 SPRITLAVEL : 60/80 mm length.

11 VERNIER CAILIPER :

12 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.

OMEGA ELECTRONICS