

OM LAB PRODUCTS

4265, Hill Road, Near Kali Bari Mandir,
Ambala Cantt-133001, Haryana
Phone: +91-171-4008555
Mobile: +91-9991778111, +91-7015142342
E-mail: info@omlabs.in, enquiry@omlabs.in
Website: www.omlabs.in

OM LABS
An ISO Certified Co

HALL EFFECT EXPERIMENTAL SETUP

Features :

Hall Effect is an instrument to determination of mobility of charge carriers.

Experiment

Hall Effect is an instrument to determination of mobility of charge carriers.

Apparatus Supply

1. ELECTROMAGNET
2. DIGITAL POWER SUPPLY FOR ELECTROMAGNET
3. DIGITAL GAUSS METER
4. CONSTANT CURRENT POWER SUPPLY
5. WOODEN STAND
6. HALL CRYSTALS

- ✓ N and P Type Hall Crystal Mounted on PCB
- ✓ Termination: 4Nos. (2mm for Voltage and 4mm for Current)
- ✓ 10mm Rod mounted on PCB to be Hold at Wooden Stand
- ✓ Type: N
- ✓ Size: 10mmx8mm
- ✓ Thickness:

Resistivity x $10^{-2} (\Omega.m)$ at room temperature	0.8027
Hall Coefficient x $10^{-6} (m^3 \text{ coloumb}^{-1})$	-6680
Type	N
Mobility x $10^{-4} (m^2/V.s)$	257.006
Carrier concentration x $10^6 (m^{-3})$	3.92×10^{15}



ELECTROMAGNET (7.5K GAUSS)

Apparatus Supply

1. ELECTROMAGNET –

- Made of soft iron, specially design for Hall Effect experiments,
- mounted on a wooden base for stable performance,
- Pole pieces :- 50mm dia. tapered type
- Field :- 7.5kg at 10mm. air gap,
- Energizing Coils: - Two coils each with total resistance of 9 ohms (approx).
- Termination: 4mm Terminals (30A)

Optional:

- DC Power Supply AL-E188: 0-65V,6A

Patch Cords 4mm 1Mtr. Length: 2No.

DC POWER SUPPLY 0-65V, 6A

MAIN FEATURES:

- Independent Output with Variac Control
- Supplies up to 350W total Power
Highest Output Resolution: 1mV/1mA
- Insulation between three output channels effectively reduce the interference
- Low ripple noise: <300 u Vrms/mVpp

SPECIFICATIONS:

• Model No • Dimensions • Weights • Display Type • Protection	• AL-E188 • 320mm (L)x 140mm (H)x 200mm (D) • About 5.8 Kg • 3 and Half Digit LED Display For Current • With Thermal Circuit Breaker
• DC Output Ratings	Voltage: 0-65V Current: 0-6A
• Line Regulation	Variable Output: CV:≤0.01%+2mV CC:≤0.01%+1mA
• Load Regulation	Variable Output: CV:≤0.01%+3mV CC:≤0.01%+3mA
• Noise and Ripple (20Hz-7MHz)	Variable Output: CV:≤300uVrms/2mVpp CC:≤3mArms
• Setting Resolution	Voltage: 1mV (Variable Output) Current: 1mA (Variable Output)

DIGITAL GAUSS METER

Gauss Meter is an instrument to find the Magnetic Field of Any Object

Experiment

To find the Magnetic Flux (Electromagnetic Field of any Object)

DIGITAL GAUSS METER:

- Range: 0-2 K Gauss & 0-20 K Gauss,
- Resolution: 1Gauss at 0-2 K Gauss Range,
- Accuracy: $\pm 0.5\%$,
- Display: 3 ½ Digit, 7 Segment LED,
- Power: 220V, 50Hz
- Special Feature: Indicates the direction of the Magnetic field.
- Gauss Probe

SALIENT FEATURES:

- Front panel built with high class insulated Printed Circuit Board sheet with well printed circuits and symbols.
- Instruction manual.
- Connections are brought out through 3Pin Connector
- The trainer is housed in ABS Plastic and Metal Cabinet.

Size of the trainer set 12"x4.5"

CONSTANT CURRENT POWER SUPPLY

1. Constant Current Power Supply:

(i) Digital Mill voltmeter

- Range: 0-200mV/2000mV (100 μ V minimum)
- Accuracy : $\pm 0.1\%$ of reading ± 1 digit
- Selection: Through Toggle Switch

(ii) Digital Mill Ammeter

- Range : 0-10mA/20mA
- Accuracy : $\pm 0.1\%$ of reading ± 1 digit
- Selection: Through Toggle Switch

(iii) Constant Current Power Supply Current :

- 0-20mA Resolution : 10 μ A
- Accuracy : $\pm 0.2\%$ of the reading ± 1 digit
- Load regulation : 0.03% for 0 to full load
- Line regulation : 0.05% for 10% variation

(iv) Termination: 4Nos. (2mm for Voltage and 4mm for Current)

SALIENT FEATURES:

- Front panel built with high class insulated Printed Circuit Board sheet with well printed circuits and symbols.
- Instruction manual.
- Connections are brought out through 3Pin Connector

Note : Specifications and Image are Subject to Change due to Continuous improvements

Deals in all Laboratory &
Scientific Instruments.
Visit us at: www.omlabs.in

Contact us at: +91 9991778111,
+91 7015142342
E-mail: info@omlabs.in

Follow us at:

