TESTING AND MEASURING EQUIPMENTS

General Physics Equipments

Digital Gaussmeter 101

- •Mag. Field Measurement
- Excellent Linearity
- IC Controlled Circuit
- Excellent Stability

Introduction



Digital Gaussmeter-101 operates on the principle of Hall Effect in Semiconductors. A semiconductor carrying current develops an electromotive force, when placed in a magnetic field, in a direction perpendicular to the direction of both electric current and magnetic field. The magnitude of this e.m.f. is proportional to the field intensity, if the current is kept constant. This e.m.f. is called the Hall Voltage. The small Hall Voltage is amplified through a high stability amplifier so that a millivoltmeter connected at the output of the amplifier can be calibrated directly in magnetic field unit (gauss).

Applications

- Wide application in industry where accurate measurements of magnetic field is required.
- Measurement of steady magnetic field e.g. in loud speakers, dynamos, moving coil instruments etc.
- Useful in laboratory experiments involving electromagnets.

Specifications

Parameter	Value
Range	0-2KG & 0-20KG
Resolution	1G at 0-2KG range
Accuracy	±0.5%
Temperature	Upto 50°C
Display	$3\frac{1}{2}$ digit, 7 segment LED DPM with auto polarity and over flow indication
Power	220V ±10%, 50Hz
Transducer	Hall Probe – InAs
Special Feature	Indicate the direction of the magnetic field
Weight	3Kg
Dimensions	280mm X 255mm X 120mm

C R O M T E C H INDIA 1st Floor Begum Niwas, Opp Mercantile, Bank Society Colony, 5th Natwar Nagar Road, Jogeshwari (East), Mumbai 400 060. Maharashtra - India. Mobile: +91 98693 82134 / 81088 13320 Telefax: +91 22 2838 6028 Email: <u>cromamumbai@mail.com / cromtechindia@mail.com / info@cromtechindia.com / sales@cromtechindia.com</u> Website: www.cromtechindia.com

OF Cromtech India

TESTING AND MEASURING EQUIPMENTS

General Physics Equipments

Digital Gaussmeter 102

- Wide Range (1G to 20KG)
- Excellent Linearity
- Excellent Stability
- Interchangable Hall Probes

Introduction



Digital Gaussmeter-102 operates on the principle of Hall Effect in Semiconductors. A semiconductor carrying current develops an electromotive force, when placed in a magnetic field, in a direction perpendicular to the direction of both electric current and magnetic field. The magnitude of this e.m.f. is proportional to the field intensity if the current is kept constant. This e.m.f. is called the Hall Voltage. The small Hall Voltage is amplified through a high stability amplifier so that a millivoltmeter connected at the output of the amplifier can be calibrated directly in magnetic field unit (gauss).

Applications

- Wide application in industry where accurate measurements of magnetic field is required.
- Measurement of steady magnetic field e.g. in loud speakers, dynamo, moving coil instruments etc.
- Useful in laboratory experiment involving measurement of magnetic field.
- With easy interchangeability of Hall Probe, same guassmeter can be used with both transverse and axial probe.

Specifications

Parameter	Value
Resolution	1 gauss at 1 kilogauss range
Range	1KG and 10KG with 100% over ranging
Accuracy	±0.5%
Temperature	Upto 50°C
Display	3 ¹ / ₂ digit, 7 segment LED DPM with auto polarity and overflow indication
Power	220V ±10%, 50Hz
Transducer	Hall Probe – InAs
Special Feature	Indicate the direction of the magnetic field
Weight	3Kg
Dimensions	280mm X 255mm X 120mm

TESTING AND MEASURING EQUIPMENTS

General Physics Equipments

Digital Gaussmeter 103

Introduction

DGM-103 operates on the principle of Hall Effect in Semiconductors. A semiconductor carrying current develops an electromotive force, when placed in a magnetic field, in a direction perpendicular to the direction of both electric current and magnetic field. The magnitude of this e.m.f. is proportional to the field intensity if the current is kept constant. This e.m.f. is called the Hall Voltage. The small Hall Voltage is amplified through a high stability amplifier so that a millivoltmeter connected at the output of the amplifier can be calibrated directly in magnetic field unit (gauss).



Applications

- Wide application in industry where accurate measurements of magnetic field is required.
- Measurement of steady magnetic field e.g. in loud speakers, dynamo, moving coil instruments etc.
- Useful in laboratory experiment involving measurement of magnetic field.
- With the differential mode facility, the instrument is especially useful for testing the homogeneity/variation of magnetic field in a particular region.

Specifications

Parameter	Value
Range	0-2KG, 0-20KG & 0-40KG
Resolution	1G at 0-2KG range in normal mode 1G at 20KG & 40KG range in differential mode
Accuracy	±0.5%
Temperature	Upto 50°C
Display	3 ¹ / ₂ digit, 7 segment LED DPM with auto polarity and overflow indication
Power	220V ±10%, 50Hz
Transducer	Hall Probe – InAs
Special Feature	Indicate the direction of the magnetic field
Weight	3Kg
Dimensions	280mm X 255mm X 120mm

CROMTECH INDIA 1st Floor Begum Niwas, Opp Mercantile, Bank Society Colony, 5th Natwar Nagar Road, Jogeshwari (East), Mumbai 400 060. Maharashtra - India. Mobile: +91 98693 82134 / 81088 13320 Telefax: +91 22 2838 6028 Email: cromamumbai@mail.com / cromtechindia@mail.com / info@cromtechindia.com / sales@cromtechindia.com Website: www.cromtechindia.com

General Physics Equipments

Digital Gaussmeter 104

- Wide Range (1G to 20KG)
- Excellent Linearity
- Excellent Stability
- Interchangable Hall Probes



Cromtech India

Introduction

DGM-204 operates on the principle of Hall Effect in Semiconductors. A semiconductor carrying current develops an electromotive force, when placed in a magnetic field, in a direction perpendicular to the direction of both electric current and magnetic field. The magnitude of this e.m.f. is proportional to the field intensity if the current is kept constant. This e.m.f. is called the Hall Voltage. The small Hall Voltage is amplified through a high stability amplifier so that a millivoltmeter connected at the output of the amplifier can be calibrated directly in magnetic field unit (gauss).

Applications

- Wide application in industry where accurate measurements of magnetic field is required.
- Measurement of steady magnetic field e.g. in loud speakers, dynamo, moving coil instruments etc.
- Useful in laboratory experiment involving measurement of magnetic field.
- With easy interchangebility of Hall Probe, same guassmeter can be used with both transverse and axial probe.

Specifications

Parameter	Value
Resolution	0.1 gauss at 0.1 kilogauss range
Range	0.1KG, 1KG and 10KG with 100% over ranging
Accuracy	$\pm 0.5\%$, $\pm \frac{1}{2}$ digit at 1KG and 10KG range $\pm 1\%$; ± 1 digit at 0.1KG range
Temperature	Upto 50°C
Display	$3\frac{1}{2}$ digit, 7 segment LED DPM with auto polarity and overflow indication
Power	220V ±10%, 50Hz
Transducer	Hall Probe – InAs
Special Feature	Indicate the direction of the magnetic field
Weight	ЗКg

CROMTECH INDIA 1st Floor Begum Niwas, Opp Mercantile, Bank Society Colony, 5th Natwar Nagar Road, Jogeshwari (East), Mumbai 400 060. Maharashtra - India. Mobile: +91 98693 82134 / 81088 13320 Telefax: +91 22 2838 6028 Email: cromamumbai@mail.com / cromtechindia@mail.com / info@cromtechindia.com / sales@cromtechindia.com Website: www.cromtechindia.com