

# DGM-204

## Digital Gaussmeter (with wide measurement range)

- Wide range (0.1G to 40KG)
- Excellent linearity
- Excellent stability
- Interchangeable Hall probes
- Built-in computer interface



### 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. This 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

- Current from photo multiplier tubes, photometers etc.
- 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 gaussmeter can be used with both transverse and axial probe.

### Specifications

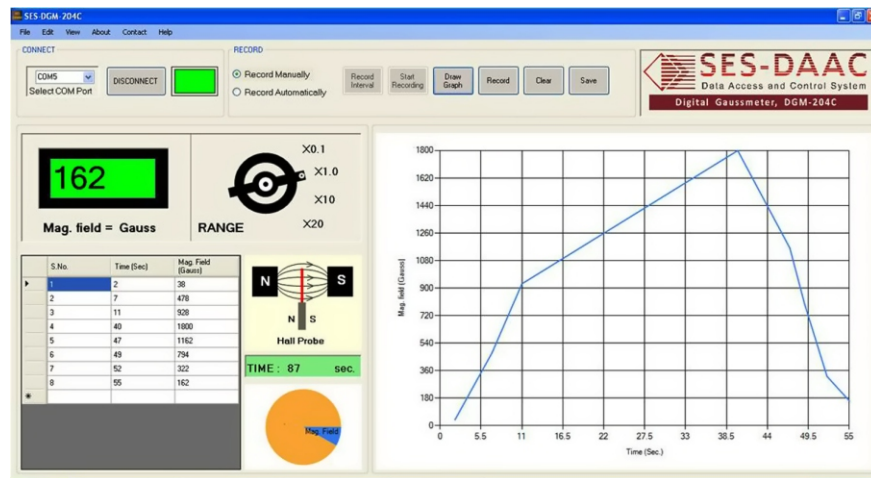
Resolution	: 0.1 gauss at 200G range
Range	: 200G, 2KG, 20KG and 40KG.
Accuracy	: $\pm 0.5\%$ , $\pm 1/2$ digit at 2KG, 20KG & 40KG range $\pm 1\%$ ; $\pm 1$ digit at 200G range
Temperature	: Upto 40°C
Display	: 3 1/2 digit, 7 segment LED with autopolarity and decimal indication
Power	: 220V $\pm 10\%$ , 50Hz
Special Feature	: Indicate the direction of the magnetic field
Interfacing	: USB ( In DGM-204-C2 model)
Software	: DACC and CAMM, both Window compatible (In DGM-204-C2 model)
Weight	: 3Kg
Dimensions	: 280mm X 255mm X 120mm

Computer interface available in DGM-204-C2 Model.

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### Computer Interface, SES-DAAC (In DGM-204-C2 only)

The unit can be connected directly to a PC through an USB port. SES-Data Access And Control is a built-in interface which gives user an option to store a value as displayed on the meter and tabulate it by the click of a button on the screen. Alternatively the data may be automatically entered into a table at user selectable interval. An 'END' button on the screen terminates the automatic tabulation.

The data stored in the table may then be displayed as a graph on the screen and may also be stored in an excel file for further processing. The software supplied with the unit is menu driven and is simple to operate.

### SES-CAMM Compatible (In DGM-204-C2 only)

This unit can also be connected to a PC through an interface module SES-CAMM to record magnetic field values. SES-CAMM is a computer aided module for connecting multiple subunits of experiments such as Hall Effect Setup to same interface on a computer. This feature is particularly useful in making this model compatible with computerized versions of complete experiments from our company.

