

Magnetic Susceptibility Meter

HIGH-SENSITIVITY & PORTABLE

The **GMS-2** is a high sensitivity, portable, hand-held Magnetic Susceptibility Meter with both digital and analog readout.

The unit is microprocessor (flash ROM) controlled allowing flexibility in display, auto ranging, auto-calibration in free air, and serial output.

MAGNETIC SUSCEPTIBILITY

Magnetic Susceptibility is the intrinsic property that determines the amount of magnetism a rock can have in a given magnetic field.

Rocks are composed of minerals which vary in their magnetic susceptibility and magnetite accounts for most of the susceptibility observed.

Thus the measurement of susceptibility can be used before magnetic surveys take place to determine which rocks will be detectable magnetically and to what extent. This can be performed in the field on outcrop or on samples in the laboratory.

It is also used after drilling to measure the drill-core to determine from what rock types and at what depths the observed magnetic responses have originated.

The table overleaf gives typical values of susceptibility for some common rocks and minerals. Values can also be related directly to the equivalent percentage volume of magnetite which would produce that value.

DIGITAL & ANALOG DISPLAY

The GMS-2 meter offers the best of both worlds by offering a numeric readout as well as a moving histogram display, which when combined with the variable pitch audio tone makes it the most versatile meter on the market.

READINGS MODE

The readings can be made in continuous mode or in single reading (step) mode.



SI or CGS UNITS

Susceptibility is a dimensionless unit and can either be expressed in the SI or CGS system. It is dimensionless but of different magnitude in each system. The meter can be toggled to display any value including data stored in memory either in SI or CGS units.

AUTO-RANGING

The unit automatically adjusts ranges to provide the maximum reading precision.

MEMORY

The unit allows for the storage of up to 100 readings and subsequent recalling through the display or RS-232 interface. The unit also has flags that can be used to identify or group readings.

RS-232 INTERFACE

The GMS-2 has an in-built RS-232 interface to store magnetic susceptibility readings on a PC either in realtime or downloaded from memory.

A straight-forward PC program is also provided for the downloading of magnetic susceptibility data onto IBM file format. This is an ASCII file and includes the magnetic susceptibility reading and any event marks.

APPLICATIONS

- Geological Mapping in Mineral & Petroleum Exploration industries
- Core Logging via application of volumetric correction factor for drill-core
- Follow-up of Magnetic Surveys
- Laboratory Measurements

FEATURES

- Digital & Analog Display
- Pocket-sized & Light-weight
- High Sensitivity & Auto-Ranging
- Scan or Step Reading Modes
- Field and Laboratory Use
- Memory for 100 readings
- RS-232 Interface for PC download.

GMS-2 Specifications

Sensitivity

1 x 10⁻⁵ SI units

Operating Range

From 1 x 10⁻⁵ to 10 SI units auto-ranging

Units

S.I. or C.G.S. Units

Sensor Oscillator Frequency

760 Hz

Response Time

Less than 2 seconds

Operating Mode

Single or Continuous Reading

Controls

Three Button Touch-pad

Memory

100 Readings and 10 Flags

Display Type & Rate

- Liquid Crystal, Dot Matrix Screen, 124 x 64 pixels
- Displays Analog & Digital Reading and Menus

Digital Display: 4 digits updated approx. once per second

Analog Display: 2D graphical, updated 10 times per second

Output

- Audio Output on Key touch. Selectable Continuous Audio Indication of relative reading values
- Digital Output via inbuilt RS-232 Interface complete with PC software for data collection and storage

Power Source

2 x 1.5Volt "AA" Alkaline Batteries
Power down feature with auto shut-off
Low battery is indicated

Battery Life

Better than 25 hours continuous use

Meter Case

Water Resistant - 'O' ring sealed

Environmental

Temperature Range

Operating: 0°C to +50°C

Storage: -40°C to +60°C

Relative Humidity

10 to 90% (non condensing)

Weight & Dimensions

Length: 155mm

Width: 84mm

Height: 34mm

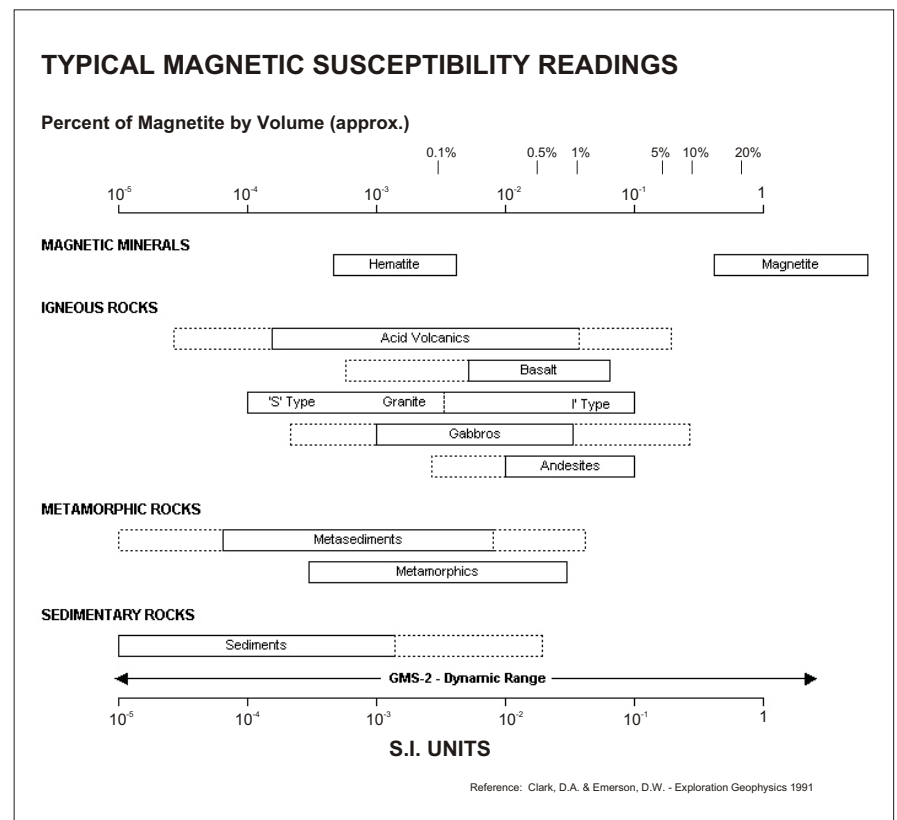
Weight: 350 grams

Accessories included:

- Serial Interface Download Kit
- Leather Carrying Case
- Users Manual

Optional Accessories:

- Sturdy, Plastic, Waterproof Case



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