

MS3 Magnetic Susceptibility Meter

The new MS3 Magnetic Susceptibility Meter is smaller, lighter, easier to use and gives an increased range of measurement, compared with the MS2 it supersedes.

The MS3 enables measurements up to 26 SI, with a resolution up to 2×10^{-6} SI, and is supplied with new 'Bartsoft' control software. Bartsoft provides the user with the enhanced ability to customise the method of data acquisition as well as its representation and storage.

Bartsoft currently operates with Windows® XP and Vista operating systems and is ideally suited to laboratory measurements. However, for those wishing to use the MS3 with a PDA for field applications, a version of Bartsoft designed for use with Windows® Mobile 6, and integrating GPS logging capacities will be available from Spring 2010.

A handheld, Trimble field data logger will also be available on request.

The MS3 currently operates with the following MS2 sensors:

- B, C, E, G, H, K

From the Spring of 2010 a free upgrade to the Bartsoft software (available as a download from the Bartington Instruments website) will also enable operation with the D and F probes in conjunction with the standard probe handle.

Applications

Existing users of the MS2 and its probes currently work in:

- Pollution studies
- Archaeology
- Palaeoclimatic / Palaeoenvironmental studies
- Petroleum geology

Due to their success and support, the MS2 has become the industry standard equipment for Geosciences.

The MS3 not only supports these applications, but the extended measuring range facilitates new applications for example where measurement of highly magnetic materials is required. Potential applications include:

- Quality control of ore processing
- Analysis of magnetic inks
- Analysis of metal compounds



MS3

Magnetic Susceptibility Meter

Specification – MS3 Meter	
Measurement range	Up to 26 SI
Maximum resolution	Up to 2×10^{-6} SI (vol), sensor and environment dependant
Power supply	Powered by computer via USB or RS232 serial port
Enclosure material	White Polyacetal
Operating temperature range	-40°C to +70°C
Storage temperature range	-60°C to +125°C
Weight	145g
Dimensions (L x W x H)	120x50x25mm
Sensor cable	50Ω TNC to TNC, 1m length (max. 100m)
PC interface	Mini USB /USB on 150mm cable (RS232 option available)
Indicators	One tricolour LED
Environmental IP rating	IP65
Software requirements	Windows® 2000, XP, Vista Windows® Mobile (March - April 2010)

* Please note that the MS3 is currently not compatible with the MS2 Susceptibility/Temperature system.

Bartsoft

Magnetic Susceptibility Acquisition Software

Customising the measurement period (from 100ms) enables the operator to halve the overall scanning time, compared with the MS2, with no loss of resolution. Measurement protocols can be specified, providing a semi-automated process of acquisition.

The user can determine which data will appear on the screen, including correction factor, raw and corrected data, etc. Data can be displayed in tabular and/or graphical formats (linear or grid) adapted to the type of sensor used.

Measurements can then be saved using Bartsoft or copied into a spreadsheet for further analysis.

The field version, running under Windows® Mobile will include GPS compatibility for synchronised logging of location and magnetic susceptibility.

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Instruments