Magnetic Susceptibility
Product Range

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The specifications of the products described in this brochure are subject to change without prior notice.
Magnetic susceptibility meters

**MS2 Meter**
This battery powered portable meter, with integral four-digit display, is compatible with all MS2 sensors and probes. Two measurement periods and a range switch allow to achieve resolution of up to $2 \times 10^{-6}$ SI (volume specific). The unit is environmentally sealed for outdoor use.

**MS3 Meter**
A compact and lightweight, software controlled, meter which is compatible with all MS2 sensors and probes. Its USB connection provides power and allow for data transfer. Datalogging software for PC and Mobile devices is available for use both in the field and in a laboratory.

Magnetic susceptibility sensors and probes

**MS2B Dual Frequency Sensor**
This sensor has a 36mm sample cavity for samples including powders, soils and liquids. The two operating frequencies of 0.465kHz (LF) or 4.65kHz (HF) allow measurement of frequency dependancy. It is commonly used for environmental magnetics and as a quality control tool in industrial applications. Calibration accuracy to 1%.

**MS2C Core Logging Sensor**
A sensor, available in a range of diameters, for the measurement of volume susceptibility of cores or cylindrical samples. The diameters available range from 30 to 162mm, with a spatial resolution of 20mm. Calibration accuracy to 5%.

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Magnetic susceptibility sensors and probes

MS2D Loop Probe
This 180mm diameter probe has a depth of response of 50% at 15mm and 10% at 60mm. It operates with the MS2 probe handle. It is designed for the mapping of magnetic susceptibility of soils and is used in archaeology or environmental magnetics.

MS2F Surface Point Probe
This point probe has a depth of response of 10% at 6mm from end face and 4.5mm from outer diameter of end cap. It operates only with MS2 probe handle. It is primarily used for magnetic susceptibility mapping over rough surfaces.

MS2E Surface Scanning Sensor
This high spatial resolution sensor has a response area of 3.8mm x 10.5mm and a depth of response of 50% at 1mm and 10% at 3.5mm. It is designed for the measurement of susceptibility of split cores and is used in sedimentology and climate change studies. Calibration of 2%.

MS2K Surface Sensor
A hand-held sensor which provides an area of response of 25.4mm diameter and a depth of response of 50% at 3mm and 10% at 8mm. It is designed for the measurement of susceptibility of exposed outcrops and vertical surfaces, and is commonly used in archaeology or sedimentology. Calibration of 1%.

MS2G Single Frequency Sample Sensor
A laboratory sensor used for the measurement of 1ml powder or liquid samples. Scaling correction values allow volumes down to 0.2ml to be measured. Typically used in chemistry application including the analysis of magnetic nanoparticles. Calibration accuracy 2%.

MS2H Downhole Probe
This downhole probe has a stratigraphic resolution of 12.5mm, and is for use in 25mm nominal diameter auger holes. It has a horizontal depth of penetration of 50%/2mm, 10%/5.5mm and 1%/13mm. It is commonly used in stratigraphic profiling for archaeology. Calibration accuracy 5% in ø22mm sample.
Magnetic susceptibility sensors and probes

**MS2/MS3 Susceptibility/Temperature System**
Measures the magnetic susceptibility of samples over the temperature range from -200°C to +850°C. It is used for the determination of mineral content and history of magnetisation.

The complete system comprises:
- MS2W Water Jacketed Sensor
- MS2WF Furnace
- MS2WFP Power Supply Unit
- Self-contained water coolant supply
- Geolabsoft software package

**BSS-02B Borehole Sonde**
A borehole magnetic susceptibility which offers a measuring range from $10^{-5}$ to $10^{-1}$ CGS. It can operate to depth of 6000m, and up to +90°C. For use in borehole of 50mm diameter, correction factors are provided when used in larger boreholes. The sonde necessitate integration into a downhole logging tools. It is most commonly used in mineral exploration.