

# Magnetic Susceptibility Product Range



## Magnetic Susceptibility Meter

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### MS3 Meter

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



**MS3 Meter**

## Magnetic Susceptibility Sensors and Probes

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### MS2B Dual Frequency Sensor

This sensor has a 36mm cavity for samples including powders, soils and liquids. Its two operating frequencies, 0.465kHz (LF) or 4.65kHz (HF), allow measurement of frequency dependency. Its calibration accuracy is to 1%. It is often used for environmental magnetics, and as a quality control tool in industrial applications.



**MS2C Core Logging Sensor**

### MS2C Core Logging Sensor

A sensor for measuring the volume susceptibility of cores and cylindrical samples. It is available in a range of diameters, from 30 to 162mm, with a spatial resolution of 20mm. Its calibration accuracy is to 5%.



**MS2B Dual Frequency Sensor**

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### MS2D Loop Probe

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

### MS2E Core Logging Sensor

This high spatial resolution sensor is designed for measuring the susceptibility of split cores in sedimentology and climate change studies. It has a response area of 3.8mm x 10.5mm, and a depth of response of 50% at 1mm and 10% at 3.5mm. Calibration accuracy 2%. A calibration sample is also available.

### MS2F Surface Point Probe

This point probe is used mainly for magnetic susceptibility mapping over rough surfaces. Its depth of response is 10% at 6mm from end face, and 4.5mm from outer diameter of the end cap. It operates with MS2 probe handle.



MS2D Loop Probe



MS2E Surface Scanning Sensor



MS2K Surface Sensor



MS2F Surface Point Probe



MS2H Downhole Probe

### MS2G Single Frequency Sensor

This sensor is used mainly in chemistry applications, such as analysis of magnetic nanoparticles. It can measure 1ml powder or liquid samples, with scaling correction values allowing volumes down to 0.2ml to be measured. Calibration accuracy 2%.

### MS2H Downhole Sensor

This downhole sensor is commonly used in archaeological stratigraphic profiling. Its stratigraphic resolution is 12.5mm, for use in 25mm nominal diameter auger holes. It has a horizontal depth of penetration of 50%/2mm, 10%/5.5mm and 1%/13mm. Calibration accuracy is 5% in a  $\varnothing$ 22mm sample.

### MS2K Surface Sensor

This hand-held sensor is designed to measure susceptibility of exposed outcrops and vertical surfaces. It is commonly used in archaeology and sedimentology. It provides an area of response of 25.4mm diameter, and a depth of response of 50% at 3mm and 10% at 8mm. Calibration accuracy 1%. A calibration sample is also available.



MS2G Single Frequency Sample Sensor

### MS2 Probe Handle

This device allows for easy operation of probes and sensors. It incorporates electronics for the MS2D and MS2F sensors, and connects them to the MS3. The handle is submersible up to the depth of the electronics unit (0.6m).



**MS2 Probe Handle**

### MS2/MS3 Susceptibility/Temperature System

This system measures the magnetic susceptibility of samples over a temperature range of  $-200^{\circ}\text{C}$  to  $+850^{\circ}\text{C}$ . It is used to determine mineral content and history of magnetisation of samples.

The complete system comprises the following.

- MS2W water-jacketed sensor
- MS2WF furnace
- MS2WFP power supply unit
- Self-contained water coolant supply
- Geolabsoft software package



**MS2/MS3 Susceptibility/  
Temperature System**

## BSS-02B Borehole Sonde

### **BSS-02B Borehole Sonde**

This is a borehole sonde for measuring magnetic susceptibility, and is used most commonly in mineral exploration. It comprises an aluminium alloy cylindrical enclosure containing the electronic circuitry, and a high strength non-magnetic enclosure housing the detector. It offers a measuring range from  $10^{-5}$  to  $10^{-1}$  CGS, and can operate to a depth of 6000m, at temperatures up to  $+90^{\circ}\text{C}$  over a temperature of ambient to  $+120^{\circ}\text{C}$ . It is designed for use in boreholes of 50mm diameter, but correction factors are provided for its use in larger boreholes.



**BSS-02B  
Borehole Sonde**

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