Bartington MS2WFP Susceptibility Meter

Make: Bartington, UK

Model: Dual frequency Magnetic Susceptibility Meter (MS2WFP)

Description:

MS2 sensor is used to measure the magnetic susceptibility of soil, rock and sediment samples, and is widely recognised as a standard instrument in the characterisation of the magnetic properties of soil. The dual frequency facility permits identification of superparamagnetic magnetic grains, which helps characterise the processes that affect the sample. The sensor is connected to the MS2 via a 50-ohm TNC cable. Power is supplied to an oscillator circuit within the sensor. This generates a low intensity (80 A/m) alternating magnetic field. Any material brought within the influence of this field will bring about a change in oscillator frequency. The frequency information is returned in pulse form to the MS2 where it is converted into a value of magnetic susceptibility. The sensor subjects the sample to a non-saturating field and this has the advantage of measuring initial susceptibility without destroying any sample magnetic remanence.

Specification	
Calibration accuracy	1% (10ml calibration sample provided)
Measurement period (MS2)*: x 1 range x 0.1 range	1.5s SI (1.2s CGS) 15s SI (12s CGS)
Operating frequencies: LF HF	0.465kHz ±1% 4.65kHz ±1%
Amplitude of applied field	250µT peak ±10% (LF & HF)
Maximum resolution	2 x 10^{-6} SI (vol) (2 x 10^{-7} CGS) (LF & HF)
HF/LF cross calibration	0.1% worst case (can be adjusted using calibration sample)
Drift at room temperature	<2 x 10^{-5} SI (<2 x 10^{-6} CGS) in 3 minutes (after 5 minute warm-up)
Dimensions (W x H x D) Sample cavity internal diameter	110 x 145 x 210mm 36mm
Weight	0.7kg
Enclosure material	High impact ABS

Susceptibility vs. Temperature - Curie temperature estimation (MS2WFP)

This system measures the magnetic susceptibility of samples over the temperature range -200°C to +850°C. It is used in the investigation of the magnetic properties of minerals and for the determination of Curie transition temperatures. The system comprises: the MS2 Meter; MS2W Water Jacketed Sensor; MS2WF Furnace; MS2WFP Power Supply Unit; and a self-contained water coolant supply, fully interlocked to prevent the MS2WF Furnace operating without coolant flow. The Geolabsoft software package (running under Windows) collects data and displays the results during the measurement sequence.

User Instructions:

1. Each requisition should be addressed to **Director, BSIP** for allotment of analysis date
2. Payment is to be made in advance through bank draft in favour of "**Director, BSIP, Lucknow**". Kindly visit our website for the updated rate-list
3. Data generated will be provided on CD or DVD
4. Sediment/Soil samples should be fully packed in 10 cc plastic bottles

Contact Us:

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Analysis cost: See analytical cost list as attached below