

MAGNETIC SUSCEPTIBILITY METER



© Department of Archaeology and Museology, Masaryk University.

Magnetic susceptibility meter for multi-layer survey

In-situ assessment of magnetic properties of para-, dia- and ferromagnetic materials

Manual or continuous measuring modes

with GPS positioning and map preview

Sensitivity 1×10^{-6} SI units with fast response

Temperature drift compensation

Lightweight and rugged design

Rechargeable Li-Ion cells (one charging for 3-4 working days) or 6 AA cells

Easy operation with graphical screen and large data memory

Data download via USB port or flash disk

Bluetooth communication with probe and GPS

Applications:

geological survey, archaeology, agriculture and forestry, raw material prospecting, mineralogy, sedimentation, detection of metallic objects, UXO survey



Multi Kappa instrument serves for fast field survey allowing both spot measurement and mapping by means of several probes. Together with GF Instruments traditional pocket magnetic susceptibility meters cover wide range of demands for accurate susceptibility measurement on ground surface, outcrops and samples of rock and soil. Original efficient way of temperature stabilizing allows profiling without frequent zero setting. Fast sampling rate with GPS positioning can be appreciated at moving applications. Exchangeable multi-depth and single-depth probes make choice of appropriate depth range and horizontal resolution possible.

Technical Specifications

Probes:

Measuring range: ± 0.000 to 999×10^{-3} SI units

- Sensitivity: 10^{-6} SI units for spot measurements
 10^{-5} - 10^{-4} SI units for continuous modes
- Sampling rate: max. 5 Hz
- Operating temperature: -10°C to $+50^{\circ}\text{C}$

Probe	Axial depth range (90 % of signal)	Coil diameter	Weight
MK3L	12, 25, 50 cm	125, 250, 500	4.10
MK12	12 cm	mm 125 mm	kg
5	25 cm	250 mm	0.65
MK25	50 cm	500 mm	kg
0			1.20
MK50			kg
			2.10
			kg

Control Unit:

- Measuring modes: Manual (lines with stations)
 - Continuous (lines with length markers)
 - GPS manual
 - GPS continuous
 - Search
- Map preview: max. 15000 positions
 - Integrated Bluetooth wireless technology
 - Data download via USB port or flash disk
- Sampling time: 0.2 – 5 s
- GPS receiver support (wired or Bluetooth, latitude/longitude or UTM export)
- 128 MB data flash memory (up to 64 files, max. 4.8 millions measured points)
- Graphical LCD display 320 x 240, white backlight
- Power Supply: Internal exchangeable rechargeable Li-Ion battery pack (24 -36 continuous working hours)
Internal exchangeable battery holder (for 6 x AA single use or rechargeable NiCd / NiMH)
- Dimensions & Weight: 270 x 90 (145) x 60 mm, 0.7 kg



Standard Accessories:

- Transport aluminum case: 58 x 17 x 113 cm
- Probe holder with Bluetooth adapter
- AC - adapter for 100-240 V AC, 50-60 Hz
- Cable for 12 V car socket supply
- Internal battery holder for 6 x AA cells
- Carrying belt
- Cable for data download to PC and flash disk
- Cable for FW upgrade or special applications
- CD with software
- Operating manual

Optional Accessories:

- Mapping software (Surfer)

