KM-7

Pocket Magnetic Susceptibility Meter

SatisGeo
Instruments for Geophysics & Environment

Description:

The SatisGeo KM-7 is a compact, easy-to-use handheld instrument designed for quick and easy magnetic susceptibility measurements. Its features make it an indispensable tool in field conditions and laboratory research. It can be worn on a belt in a leather case.

Real Size Picture

Applications:

- Mineral exploration
- Measuring on drill cores
- Archaeology

Technical specifications:	
Measuring range	±999 x 10-3 SI units with automatically range change
Sensitivity	1 x 10-6 SI units, 1 x 10-5 SI units in scan mode
Memory	999 readings with GPS data
Measurement frequency	10 kHz
Power	2 x AAA battery
Display	4 rows, backlight
Controls	4 switches: Escape, Enter, Up, Down
Size	165 x 68 x 28 mm
Weight	250 g including battery
Temperature range	-20°C to +60°C
Power Consumption	8 mA without backlight and Bluetooth
Communication	USB 2.0, Bluetooth. Bluetooth can be used to connect to Bluetooth GPS
Robust construction	dust and water-resistant, ideal for off-road use

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Measuring modes:

1. **SINGLE**
   - For individual measurements on the sample.
   - It performs three measurement steps (air - sample - air) for maximum compensation for temperature effects.
   - The GPS position is automatically stored if the GPS is active.
2. **SCAN**
   - For indicative measurements of the magnetic susceptibility distribution.
   - It measures approximately 3 times per second and displays the values in real-time (without storage).
3. **REMOTE SCAN**
   - Designed especially for drilling cores.
   - Transmits and stores data to the computer 5 times per second with averaging capability.

Accessories:

- 1 x Magnetic susceptibility meter (kappa meter) KM-7
- 1 x Leather case
- 1 x PIN for measuring on uneven surfaces.
- 1 x Manual
- 2 x AAA batteries
- 1 x USB cable
- 1 x USB FLASH with operator program

Sensor settings:

- **FLAT** - For measurements on flat surfaces with a sufficiently large sample size. For small samples, the magnetic susceptibility value may not be correct.
- **PIN** - The sensor is equipped with a special additional spacer pin for uneven surfaces.
- **CORE** - For measurement on drill cores, with core diameter adjustment. Not suitable for halved cores.

SgDataKM application for Transferring Data:

SgDataKM application provides data transfer and visualization to assess the data and exports for further processing. SgDataKM is also used to store and visualize measured data in REMOTE mode.

GPS options:

The KM-7 allows communication with an external device using Bluetooth wireless technology. This enables the KM-7 to connect to an external GPS receiver that can send NMEA messages using the Bluetooth Serial Port Protocol (SPP). When the KM-7 is connected to such a GPS receiver, the sample position is stored with its value.

Calibration:

The instrument is calibrated for ideal conditions, where the measurement is performed on a smooth sample of known magnetic susceptibility that exhibits homogeneous and isotropic properties. The dimensions of the sample are sufficiently large relative to the size of the sensor and can be considered a half-space.

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