



KT-9

Magnetic Susceptibility Meter

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Digital Magnetic Susceptibility Meter

Features

- Measuring Pin: Easy sampling for accurate readings on uneven surfaces.
- Drill Core Sampling: Automatically corrects data for drill core diameter.
- Digital Output: Serial data output for data storage on a laptop computer.
- External Sensor: Permits easy core scanning.
- Extendible Handle: Permits ground sampling from a standing position.
- Variable Audio: Emits audio tone related to measured values for fast search.

Benefits

- High Sensitivity: 1×10^{-5} SI units (8×10^{-7} cgs)
- Large Range: 1×10^{-5} to 999×10^{-3} SI units (8×10^{-7} to 8×10^{-2} cgs)

- Real Susceptibility: Automatically corrects for errors in the high ranges.
- Rugged Design: Designed for demanding field operations.

General

The KT-9 is the state-of-the-art in portable Magnetic Susceptibility Meters. The field geologist will find that the many advanced features of the KT-9 make it an indispensable tool for the accurate analysis of rock samples. This very compact, hand-held unit can be used to analyze and classify rock types or drill core samples. It measures the volume magnetic content of rocks to extremely low levels, and thus can identify and classify minute quantities of magnetite, titanomagnetite, ilmenite and pyrrhotite.

Sensitivity:

The KT-9 has a sensitivity of 1×10^{-5} SI units (8×10^{-7} cgs). As the instrument is fully digital, the operator is not required to make any selection changes over the complete

operating range (1×10^{-5} to 999×10^{-3} SI units [8×10^{-7} to 8×10^{-2} Cgs]) of the KT-9. In previous instruments, the higher ranges gave only the apparent susceptibility thereby requiring the user to make manual corrections. These corrections are now automatic in the KT-9.

Pin / No-Pin:

A unique feature of the KT-9 is a pin that protrudes from the center of the coil. This pin enables the user to take a reading from an extremely small portion of the sample's surface. By taking successive readings on an uneven surface, the "unevenness" error will be removed from the data, and a very accurate result will be obtained. The KT-9 gives the user a data average for samples in memory.

The KT-9 can also be operated in the No-Pin mode, which is possible by replacing the measuring pin with a stud. In this mode the sensor is able to come into direct contact with the sample.

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Sensor:

The KT-9 uses an air-cored measuring coil which has a much greater degree of sample “penetration”. Unlike the 2-3 mm sample depth from an instrument using a ferrite core, the KT-9 coil gets 90% of its signal from the first 20 mms of the sample. Thus small amounts of local mineralization will not distort the measured values.

Drill Core:

The KT-9 automatically corrects for drill core diameters thereby providing corrected data immediately to the user. The core diameters are specified in 1 centimeter increments from 3 to 12 centimeters. A special value of 2.54 is used to specify a 1 inch diameter core.

Digital Output:

The KT-9 can be connected to a laptop computer, and special software is supplied to enable the instrument to be remotely con-

trolled by the computer. This permits the user to enter identification codes, and to start and stop scanning of data. Thus logging of drill cores can be directly correlated to core labels, and profile scanning related to location.

External Sensor:

An external coil is available for scanning of narrow core samples. This coil may also be mounted on an extendible handle to facilitate ground sampling from a standing position. When an external sensor is connected, the internal sensor is automatically disconnected.

Fast Scanning:

The KT-9 has an automatic SCAN mode to allow larger areas to be scanned quickly for changes in susceptibility. The scan rate is three readings per second (three times faster than the KT-5).

Data Storage:

Up to 10 readings can be stored in the KT-9’s internal memory. This data is retained even if the unit is powered off.

Data Averaging:

The average of up to the 10 stored readings can also be displayed. This allows for very accurate measurement of uneven surfaces while in the PIN mode, as well as improved data quality for smoother surfaces while in the NO-PIN mode.

Standard Components

Complete field unit includes: KT-9, battery, RS-232 cable and software, leather carrying case, and instruction manual.

Ordering Information

Description	Order Number
KT-9	2250-100-0070
External Sensor	2250-100-0080
Extension Handle	2250-100-0090