Terraplus
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your source for geophysical instruments

KT-10 Magnetic Susceptibility and Conductivity Meters

Magnetic Susceptibility Meters · Conductivity Meters · Combined Magnetic Susceptibility/Conductivity Meters

The KT-10 meters are a line of handheld instruments that measure the magnetic susceptibility and/or conductivity of a geological sample or core. The meters are available in circular and rectangular coil designs to measure large or small sized samples, respectively. The KT-10 meters produce repeatable results, and include features such as corrections for split and full cores, the ability to input information to correlate measurements to their appropriate depths, a built-in microphone to record voice notes, and the GeoView data management/visualization software. With its compact and rugged design, the KT-10 meters are ideal instruments for use in the field, core shack, or lab.

KT-10 v2 Magnetic Susceptibility Meter (Circular Coil)

Benefits:

- Stand-alone units with display and data storage.
- High sensitivity for magnetic susceptibility (10^{-7} SI units with KT-10H models) and conductivity (1 S/m).
- Three modes of operation: discrete measurements, continuous scanning (20 readings per second), or borehole (correlate measurements to their depth in the borehole).
- Measure core split and full drill core, rock samples, outcrop, chips or powdered samples.
- Split and full core corrections for standard drill rod diameters (AQ, BQ, HQ, NQ and PQ) and non-standard sizes (2.4 to 12 cm).
- Data running average and standard deviation values displayed during discrete measurements; data averages and maximum values provided during scanning.
- Pin mode to measure samples with uneven surfaces (available with circular coil designs only).
- Built-in microphone to record voice notes with measurements.
- GeoView software to organize and visualize data on a PC.
- Compatible with Geobank Software (available from Micromine, www.micromine.com).
- Upgrades and support available via the internet.

KT-10R S/C Magnetic Susceptibility/Conductivity Meter (Rectangular Coil)

KT-10R v2 (Rectangular Coil)

KT-10 S/C (Circular Coil)

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KT-10 Models

Dedicated Magnetic Susceptibility Meters

KT-10 v2	KT-10R v2	KT-10H
▪ Circular coil design ▪ Sensitivity: 10^{-6} SI units ▪ Measurement range: 0.001 x 10^{-3} to 1999.99 x 10^{-3} SI units ▪ Pin mode available for measuring uneven surfaces ▪ KT-10 Plus (Optional) *	▪ Rectangular coil design ▪ Sensitivity: 10^{-6} SI units ▪ Measurement range: 0.001 x 10^{-3} to 1999.99 x 10^{-3} SI units ▪ KT-10R Plus (optional) *	▪ Circular coil design only ▪ Sensitivity: 10^{-7} SI units ▪ Measurement range: 0.0001 x 10^{-3} to 1999.99 x 10^{-3} SI units ▪ Pin mode available for measuring uneven surfaces ▪ KT-10 Plus (Optional) *

Dedicated Conductivity Meters

KT-10 C	KT-10R C
▪ Circular coil design ▪ Absolute conductivity meter, calibrated using multi-point algorithm ▪ Sensitivity: 1 S/m ▪ Measurement range: 1 to 100,000 S/m ▪ Pin mode available for measuring uneven surfaces ▪ KT-10 Cx (optional) *	▪ Rectangular coil design ▪ Absolute conductivity meter, calibrated using multi-point algorithm ▪ Sensitivity: 1 S/ m ▪ Measurement range: 1 to 100,000 S/m ▪ KT-10R Cx (optional) *

Combined Magnetic Susceptibility/Conductivity Meters

KT-10 S/C	KT-10R S/C	KT-10H S/C
▪ Circular coil design ▪ Sensitivity: - Magnetic susceptibility 10^{-6} SI units - Conductivity: 1 S/m ▪ Measurement range: - Magnetic susceptibility: 0.001 x 10^{-3} to 1999.99 x 10^{-3} SI units - Conductivity: 1 to 100,000 S/m ▪ Pin mode available for measuring uneven surfaces ▪ KT-10 Plus S/C (optional) * ▪ KT-10 S/Cx (optional) * ▪ KT-10 Plus S/Cx (optional) *	▪ Rectangular coil design ▪ Sensitivity: - Magnetic susceptibility 10^{-6} SI units - Conductivity: 1 S/m ▪ Measurement range: - Magnetic susceptibility: 0.001 x 10^{-3} to 1999.99 x 10^{-3} SI units - Conductivity: 1 to 100,000 S/m ▪ KT-10 Plus S/C (optional) * ▪ KT-10R S/Cx (optional) * ▪ KT-10R Plus S/Cx (optional) *	▪ Circular coil design only ▪ Sensitivity: - Magnetic susceptibility 10^{-7} SI units - Conductivity: 1 S/m ▪ Measurement range: - Magnetic susceptibility: 0.0001 x 10^{-3} to 1999.99 x 10^{-3} SI units - Conductivity: 1 to 100,000 S/m ▪ Pin mode available for measuring uneven surfaces ▪ KT-10H Plus S/C (optional) * ▪ KT-10H S/Cx (optional) * ▪ KT-10H Plus S/Cx (optional) *

* See the Options section on the next page for a full description of the Plus and Cx upgrades available

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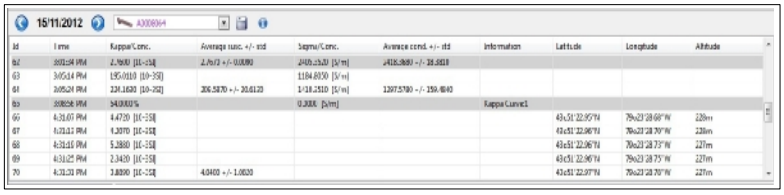
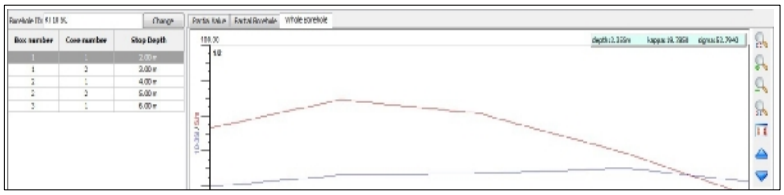
GeoView Software



Data Organization



Data Visualization

GeoView is an easy-to-use data management and visualization software program that is compatible with all Windows operating systems.

It enables users to download, store and view a KT-10 meter's data on a PC and export it to Excel. Data is organized by date or by instrument serial number, when there are data from multiple meters. Averaged readings, voice notes, and GPS positions (when paired with a Bluetooth GPS unit) can also be reviewed.

The software can also be used as a data visualization tool. Numerical values from discrete measurements are displayed in a table format; data from scanned measurements are displayed as a graph.

Options

- Upgrade a dedicated KT-10 v2 or KT-10 C to a KT-10 S/C Magnetic Susceptibility/Conductivity Meter, and a KT-10H to a KT-10H S/C.

- Plus Upgrade for Magnetic Susceptibility Measurements:
  - Increase measurement range to 10 SI units.
  - Obtain magnetite iron ore concentration estimates (%) directly from the display

- Cx Upgrade, to increase conductivity measurement range to 200,000 S/m.

- Magnetic Susceptibility Calibration Pads

  Two calibration pads are available to recalibrate the magnetic susceptibility measurements, or to verify the meter's readings. The calibration pads are available in low and high (Plus option only) susceptibility ranges.

	Low	High
Typical Nominal Susceptibility Values	34 x 10^{-3} SI	2500 x 10^{-3} SI
Diameter:	145 mm	145 mm
Height:	70 mm	70 mm
Weight:	2.65 kg	2.65 kg
Colour	Orange	Blue

- Conductivity Reference Pads

  Three reference pads are available to verify conductivity measurements. Each pad has been independently tested using different methods for measuring conductivity (AC, DC and impedance bridges). The reference pads are available with low, medium and high conductivity ranges.

	Low	Medium	High
Typical Nominal Conductivity Values	9 S/m	700 S/m	85,000 S/m
Diameter	152 mm	128 mm	152 mm
Height	50 mm	50 mm	50 mm
Weight	1.2 kg	1.0 kg	1.8 kg
Colour	Red	Yellow	Green

KT-10 Plus v2

Magnetic Susceptibility Calibration Pads

Conductivity Reference Pads

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Specifications

Operating Frequency:	10 kHz
Measurement Frequency:	20 readings per second in Scan Mode, storing 4 averaged readings per second.
Display:	High contrast LCD display with 104 x 88 pixels
Memory:	8 GB: 4,000 total records stored * * 4,000 scanner measurements, with up to 480 data points per record (total of 1,920,000 individual data points) * 4,000 discrete measurements, with 120 seconds of voice notes per reading. *Note: discrete and scan records can be combined.*
Control:	One button with up / down functionality
Data Input/Output:	USB and Bluetooth (GPS/phone pairing)
Power Supply:	2 'AA' batteries (alkaline or rechargeable)
Battery Life:	Up to 2,000 measurements without voice recorder while using rechargeable batteries (3,000 measurements with alkaline batteries)
Operating Temperature Range:	-20°C to 60°C
Meter Dimensions:	200mm x 57 mm x 32 mm
Coil Dimensions:	Circular Coil: 65 mm (diameter)
	Rectangular Coil: 65 mm (length) x 32 mm (width)
Weight:	0.33 kg with 2 'AA' alkaline batteries installed

Specifications subject change without notice (January 16, 2020)

Instrument Contents

KT-10 v2, KT-10R v2 & KT-10H	KT-10 C & KT-10R C	KT-10 S/C, KT-10R S/C & KT-10H S/C
(1) KT-10, KT-10R or KT-10H Meter (2) Pins (circular coil designs only) (2) AA alkaline batteries (1) USB data transfer cable (1) Carrying pouch with foam Insert (1) GeoView software (1) Operations manual (1) Quick reference guide	(1) KT-10 C or KT-10R C Meter (2) Pins (circular coil designs only) (2) AA alkaline batteries (1) USB data transfer cable (1) Carrying pouch with foam Insert (1) GeoView software (1) Operations manual (1) Quick reference guide	(1) KT-10 S/C, KT-10R S/C or KT-10H S/C Meter (2) Pins (circular coil designs only) (2) AA rechargeable batteries & charger (1) USB data transfer cable (1) Carrying pouch with foam Insert (1) GeoView software (1) Operations manual (1) Quick reference guide (1) Rugged transportation case
		

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