

KT-20 MAGNETIC SUSCEPTIBILITY AND CONDUCTIVITY METER

Magnetic Susceptibility · Conductivity · Density

FOR SHALLOW EXPLORATION APPLICATIONS

Agriculture · Archaeology · Environmental Investigations

The KT-20 is a portable field instrument that is used to measure the magnetic susceptibility and/or conductivity of a geological sample or core. With the introduction of the 3F-32 large diameter sensor, the KT-20's application base has been expanded for shallow applications as researchers can now measure the earth's subsurface (approximately one foot deep). Applications for the 3F-32 sensor include agriculture, archaeology, and environmental investigations.

The 3F-32 sensor has a 32 cm diameter and features three frequencies that have been carefully selected to provide certain benefits for magnetic susceptibility and conductivity measurements. The three frequencies also enable the 3F-32 sensor to provide sounding capabilities in favourable soil conditions. The 3F-32 sensor is equipped with a telescopic pole and arm support enabling users to easily and comfortably take measurements while standing or walking.

The KT-20 with 3F-32 sensor is an ideal instrument for field research. It can take a single measurement at a specific location, or continuously collect data to map an entire area. A GPS receiver is integrated into the KT-20 console to provide location coordinates with the data. It also has a built-in high resolution digital camera to visually document any sample of interest. In addition, data from the KT-20 can be exported into third-party mapping software programs. The 3F-32 sensor is currently under development and will be available in early spring 2016.



Benefits:

- **Three models** to choose from: KT-20 Dedicated Magnetic Susceptibility Meter, KT-20 C Dedicated Conductivity Meter, or the KT-20 S/C Combined Magnetic Susceptibility/Conductivity Meter.
- **Large 32 cm diameter triple-frequency sensor** (1 kHz, 10 kHz and 100 kHz frequencies) provides sounding capabilities in favourable soil conditions.
- **High sensitivity** for magnetic susceptibility (10×10^{-6} SI units) and conductivity (0.05 S/m) measurements.
- **Telescopic pole with arm support** to comfortably operate the system while standing.
- Single point and continuous measurement options. Data profiles are presented in real-time during continuous measurements.
- **Integrated GPS** to record location coordinates.
- **Built-in Digital Camera** to visually document samples.
- **Transflective colour display** that works in any lighting situation.
- Compatible with third-party mapping software programs.
- Can be used with a range of additional KT-20 sensors.

3F-32 Large Diameter Sensor Specifications

Sensor Diameter:	32 cm		
Sensor Weight:	2.0 kg		
Operating Frequencies:	<u>1 kHz</u>	<u>10 kHz</u>	<u>100 kHz</u>
Magnetic Susceptibility Sensitivity:	1 x 10 ⁻⁵ SI	1 x 10 ⁻⁶ SI	-
Conductivity Sensitivity:	21.3 S/m	1.0 S/m	0.05 S/m
Magnetic Susceptibility Measurement Range:	0.01 x 10 ⁻³ to 1999.99 x 10 ⁻³ SI	0.001 x 10 ⁻³ to 1999.99 x 10 ⁻³ SI	-
<i>- Extended Range (Plus Option):</i>	<i>0.01 x 10⁻³ to 9999.99 x 10⁻³ SI</i>	<i>0.001 x 10⁻³ to 9999.99</i>	-
Conductivity Measurement Range:	21.3 – 100,000 S/m	1 – 100,000 S/m	0.05 – 100,000 S/m
<i>- Extended Range (Cx Option):</i>	<i>21.3 – 200,000 S/m</i>	<i>1 – 200,000 S/m</i>	<i>0.05 – 200,000 S/m</i>



3F-32 Sensor with Telescopic Pole, Control Handle and KT-20 Console



3F-32 Sensor Transportation Case

KT-20 Hardware Specifications

Weight:	0.6 kg (2.6 kg with telescopic pole and 3F-32 Sensor)
Size:	260 x 72 x 60 mm
Memory:	4 GB
Data Input/Output:	USB and Bluetooth
Power Supply:	2 x Li-Ion Rechargeable Batteries
Operating Temperature:	-20°C to 60°C
Display Dimensions:	76 x 47 mm
Display Resolution:	400 x 240 pixels
Rating:	IP65
Internal GPS Accuracy:	2.0 m
Internal GPS Receiver Satellite Accessibility:	SBAS (WAAS, EGNOS, MSAS)
Built-in Camera:	2 Mega Pixels

Specifications are subject to change without notice (December 15, 2016) 2