

Red Dog - Your one-stop earth science shop !



Magnetic Susceptibility Meters

SM-30 Pocket-Size Magnetic Susceptibility Meter

A sensitive and accurate tool for field measurement of susceptibility of outcropping rocks, drill cores or rock samples



FEATURES

- **HIGH SENSITIVITY 1×10^{-7} SI UNITS** - The sensitivity is 100 times better than the competitive instruments.
- **SMALL SIZE AND LOW WEIGHT** - The SM-30 is truly a shirt pocket-sized instrument, with dimension 100 x 65 x 25 mm and weight 0.180 kg.
- **LOW NOISE** - Thanks to sophisticated signal processing the noise induced in pick-up coil is suppressed well under resolution 1×10^{-7} SI units.
- **DEEP PENETRATION OF THE SIGNAL** - The sensor design enables it to get 90 % of its signal from the first 20 mm of the rock.

This feature allows more accurate readings on uneven surfaces of all rock types.

- **SIMPLE OPERATION** - Autoranging and three-button control makes the meter the easy to operate with one hand. Internal memory can store 250 readings.
- **WARRANTY** - One-year warranty

PLEASE CALL TERRY ODGERS FOR DETAILS
PH : 011-467-3371 Cellular : 082 89 29 771
E-MAIL : redog@geoafrica.co.za
Web: www.RedDogGeo.com

Red Dog - Your one-stop earth science shop !

GENERAL

The SM-30 is small magnetic susceptibility meter. Thanks to the high sensitivity you can measure sediments and rocks with extremely low levels of magnetic susceptibility. In addition, you can measure diamagnetic materials like limestone, quartz and water.

The SM-30 is controlled by three push buttons. If no button is pressed for 3 minutes, the instrument switches off automatically. The SM-30 has a beeper indicating intervals in which the information from the rock is picked-up. The SM-30 is powered from two coin-sized lithium batteries CR2430.

SENSOR

The SM-30 has 8 kHz LC oscillator with a large size pick-up coil as a sensor. The oscillation frequency is measured when:

The SM-30 offers six measuring modes. Two of them are basic, two compensate the linear part of the thermal drift, one is for scanning (eg drill core scanning), and one is for averaging.

The large number of the memory registers (250) is useful especially when scanning mode is used.

Though the instrument is small, the pick-up coil is large enough in diameter to measure sufficiently high volume.

SPECIFICATION

- SENSITIVITY: 1×10^{-7} SI units
- OPERATING FREQUENCY: 8 kHz
- MEASUREMENT TIME: less than 5 s
- DIGITAL DISPLAY: 4 digits LCD
- CONTROLS: 3 push buttons
- PICK-UP COIL: 50 mm in diameter
- OPERATING TEMPERATURE: -20°C to 50°C
- BATTERY: 2 lithium CR2430
- BATTERY LIFE: approx. 80 hrs
- DIMENSIONS: 100 x 65 x 25 mm
- WEIGHT: 0.180 kg
- PC INTERFACE: RS232C
- STANDARD ACCESSORIES: operating manual, RS232 cable, PC software for data transmission and for external control.

PLEASE CALL TERRY ODGERS FOR DETAILS
PH : 011-467-3371 Cellular : 082 89 29 771
E-MAIL : reddog@geoafrica.co.za
Web: www.RedDogGeo.com

Red Dog - Your one-stop earth science shop !

SM-20 Magnetic Susceptibility Meter



- GEOLOGICAL MAPPING
- MINERALOGICAL STUDIES
- ORE PROSPECTING
- VOLCANOLOGY
- DRILL CORE LOGGING
- LABORATORY ROCK ANALYSIS

The SM-20 magnetic susceptibility meter serves a number of geological and geophysical applications where the unique sensitivity of 10^{-6} SI units together with its small shirt-pocket size and light weight are appreciated.

The SM-20 is designed especially for field geologists and for fast laboratory assays for analysis and classification of rock types. Measurements of outcrops, drill cores or other samples allow basic differentiation of rocks (diamagnetic, paramagnetic and ferromagnetic) and their precise susceptibility quantification.

The advanced sensor and a new method of signal processing (based on RISC microcontroller) guarantee advanced instrument features. The SM-20 is simply operated using two buttons (the first one for measurement and the second one for data storage). When used with PC control, via a RS-232 port, point labels, comments and data storage is available. Two Li cells supply power for 100 hours and the automatic POWER OFF function provides a long working time without battery change.

FEATURES

- SHIRT POCKET SIZE (MASS 127g)
- SENSITIVITY 1×10^{-6} SI UNITS
- INTERNAL DATA STORAGE
- PC CONTROL VIA RS-232 PORT
- 3-1/2 DIGIT LCD DISPLAY
- SPLASH RESISTANT

Technical Specifications:

SENSITIVITY: - 1×10^{-6} SI units

MEASURING RANGE:

0.000 to 999 $\times 10^{-3}$ SI units - auto-range

MEASURING TIME: - less than 3 s per sample

SENSOR: - air-cored coil with diameter of 50 mm getting 90% of measuring signal from the first 20 mm of the rock

OPERATING FREQUENCY: - 10 kHz

WEIGHT: - 127 g

DIMENSIONS: - 100 x 65 x 25 mm

PC INTERFACE: - RS 232C

DISPLAY: - 3 1/2 character LCD

DATA MEMORY: - internal storage of 120 measurements - advanced data management under PC control

BATTERY: - 2 Lithium 3 V cells CR 2032 (life of 100 hours typically)

OPERATING TEMPERATURE RANGE:

-10 to +60 deg C

AMBIENT OPERATING CONDITIONS:

humidity to 100% - splash resistant

STANDARD ACCESSORIES INCLUDED:-

leather case -operating manual -PC connecting RS 232C cable 9/25 pins -PC software for external control and data storage

PLEASE CALL TERRY ODGERS FOR DETAILS

PH : 011-467-3371 Cellular : 082 89 29 771

E-MAIL : reddog@geoafrica.co.za

Web: www.RedDogGeo.com

KAPPAMETER KM-7

magnetic susceptibility meter

Authorized Supplier:
PH : 011-467-3371
Cell : 082 89 29 771
reddog@geoafrica.co.za
www.RedDogGeo.com

The pocket susceptibility meter KM-7 is designed for quick measurements of magnetic properties of rocks in situ. The use of KM-7 is especially advantageous for selecting suitable specimens for further precise laboratory studies of magnetic properties.

APPLICATIONS:

Mineral Exploration
Measuring on Drill Cores
Archeology

**REAL SIZE
PICTURE**

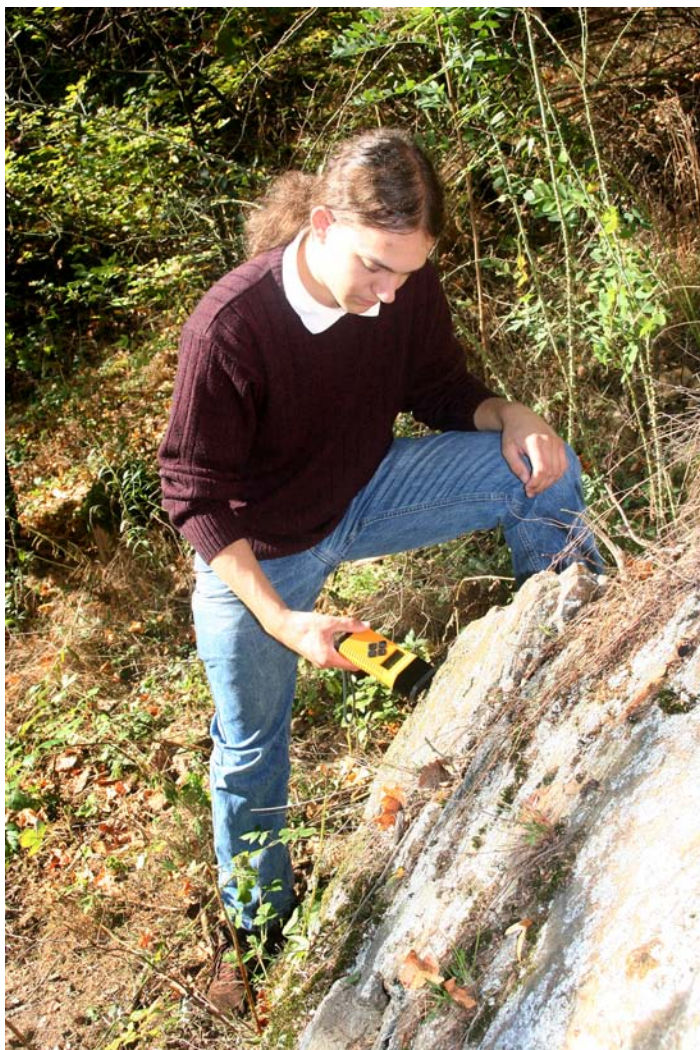


FEATURES:

**High Resolution
Excellent Accuracy
Wide Measuring Range
Internal Non-volatile Data Memory
Single & Scan Mode of Operation
Measuring Pin
GPS Connection via Bluetooth**

SPECIFICATIONS:

Sensitivity:	1×10^{-6} SI units 1×10^{-5} SI units in scan mode	Interface:	USB 2.0, bluetooth
Measuring Ranges:	$\pm 999 \times 10^{-3}$ SI units with automatically switched accuracy	Power Consumption:	8 mA (without bluetooth or backlight)
Operating Frequency:	10 kHz	Battery:	2 x AAA
Display:	4 rows, backlight	Operating Temperature:	from -20°C to $+60^{\circ}\text{C}$
Data Memory:	999 readings (without GPS data)	Dimensions:	165 x 68 x 28 mm
Controls:	4 switches: Escape, Enter, Up, Down	Weight:	250g including batteries
		Accessories:	Leather Case, Instruction Manual, USB cable, Disk with comm. program



DESCRIPTION OF OPERATION:

Kappameter KM-7 allows measuring in three modes:

SINGLE MODE - serves for taking individual readings. The measurement is carried out in two steps. By pressing the switch ENT for the first time, the instrument is cleared (zeroed); by pressing it for the second time, the susceptibility of the specimen is measured. To be cleared properly, the instrument must be removed from the measured rock and from other magnetic or conductive objects to a distance of at least 30 cm. The measured value may be stored in the memory.

Measurement can be made with a flat head of the KM-7 (suitable for smooth rock surface) or with a pin, which gives more reliable results on rough surfaces. KM-7 can be calibrated for various diameters when measuring on drill cores.

Using bluetooth connection to GPS, coordinates can be added to measured values and together stored in the memory.

SCAN MODE - provides fast information on the distribution of susceptibility over a particular rock object. In this mode, the measurements are repeated automatically about three times a second. Each measured value is displayed but not stored in the memory.

REMOTE MODE - allows measured data to be directly transferred to PC using bluetooth or USB connection. In this mode the measurements are repeated automatically about five times a second. Each value is displayed on the computer screen (a list of values as well as a graph) and stored in the internal database.

The KMdata communication software

The program on the disk supplied serves for data transfer from the KM-7 to PC. The transferred data are stored to an internal program database where they can be accessed and sorted. Any collection of data measured can be exported as a text file and used by other programs for further data processing.

The KMdata software allows direct acquisition of measurements from KM-7 in the Remote Mode.

The delivered program has also capability to upload a new firmware to the KM-7 device.

No.	Date	Time	Data	Adapter
1	11.10.2011	15:23:20	4.997	PIN
2	11.10.2011	15:23:44	16.762	PIN
3	11.10.2011	15:23:52	6.001	PIN
4	11.10.2011	15:24:00	14.926	PIN
5	11.10.2011	15:24:06	12.279	PIN
6	11.10.2011	15:24:11	30.491	PIN
7	11.10.2011	15:24:22	18.976	PIN
8	11.10.2011	15:24:47	6.295	FLAT
9	11.10.2011	15:24:54	4.997	FLAT
10	11.10.2011	15:25:00	7.204	FLAT
11	11.10.2011	15:25:06	7.387	FLAT
12	11.10.2011	15:25:13	6.674	FLAT
13	11.10.2011	15:25:20	1.525	FLAT
14	11.10.2011	15:25:25	5.682	FLAT
15	11.10.2011	15:25:32	5.126	FLAT