

H1 - 4 Magnetic Field Strength Meter

Hand-held unit with power supply, battery or accumulator

3 measuring ranges to measure permanent and alternating magnetic fields
up to 10 kHz :
20 mT, 200 mT and 2000 mT
a change-over to the unit kA/m can be done factory-provided



Typical Applications:

- Research
- Development
- Laboratory
- Training
- Production
- Permanentmagnet-Measurements

The Field Strength Meter H1-4 is a competitive electronically digital display hand-held instrument.

A variety of five coils can be connected:

1. Transversal probe HS-T 301,
dimensions 70 mm x 5 mm x 1,3 mm (measured without handle)
For measuring magnetic fields running at right angles with the probe's centre line
2. Axial probe HS-A 301,
dimensions 70 mm x 6 mm Ø (measured without handle)
For measuring magnetic fields running towards the probe's centre line
3. Transversal probe HS-T601,
dimensions 70 mm x 5 mm x 0,8 mm (measured without handle)
For measuring magnetic fields running at right angles with the probe's centre line
4. Axial probe HS-A Geo,
dimensions 200 mm x 12 mm Ø (measured without handle)
For measuring small magnetic fields (also geological) running towards the probe's centre line. This probe is 10 times more sensitive as the other probes. Thereby it will be generated an additional measuring range 2,000 mT.
5. Radial probe HS-R 301,
dimensions 70 mm x 5,8 mm x 4,0 mm (measured without handle)
For measuring radial magnetic fields in a well > 6 mm

Special sensor dimensions and the installation of sensors in other devices to customers' specifications are possible.

Setting of the Field Strength Meter H1-4 zero point and calibration of the instrument are performed by the trimmer on the front panel.

Field Strength Meter calibration is effected using an internal calibration voltage. Even greater measuring accuracy is achieved by using reference magnets that are available in different field strengths. These are unaffected by external fields and highly stable against artificial ageing.

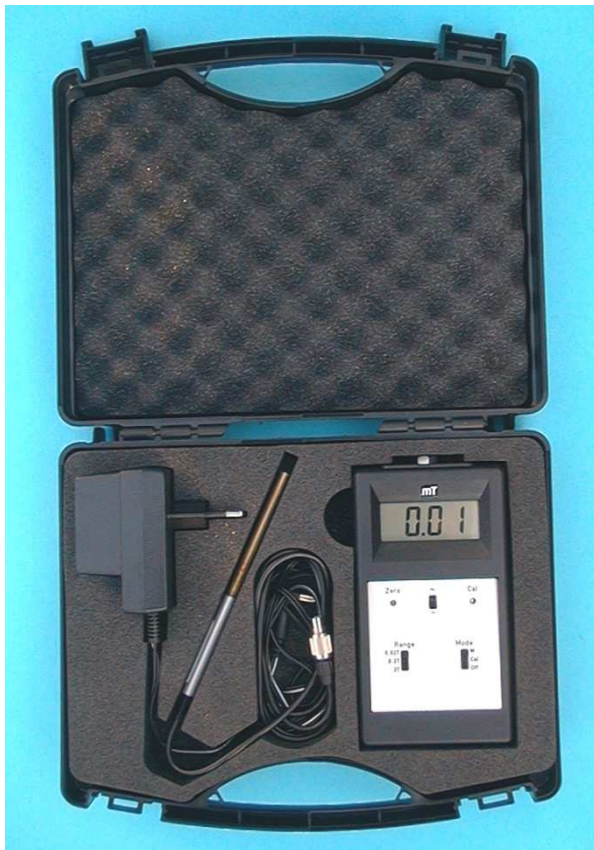
The H1-4 Field Strength Meter has an analogue output port for connection of an A/D converter for digital further processing of the output voltage.

Analog display AZ2

An analogue display with pointer meter that can be read clearly from a distance of up to 3 metres is available as table-instrument for making serial measurements. The analogue display is connected to the analogue output of the Field Strength Meter.

An additional power supply is not required. The respective tolerance range can be marked on the transparent meter cover with a marking pen so that when making the measurements it is unambiguously visible whether the meter pointer is within the tolerance range, indicating that the reading is "good".

The sensitivity of the analogue display can be adjusted continuously from 10 % to 100 % with a potentiometer.



Technical Data

Display	LCD-display, 15 mm high, 3 ½ digits, 3 readings/second, automatically polarity display
Measuring ranges	0...19,99 mT, 0...199,9 mT, 0...1999 mT permanent and alternating fields (effective value up to 10 kHz) A change-over to the unit kA/m can be done factory-provided for a fee.
Highest resolution	0,01 mT, with probe HS-A Geo 0,001 mT
Measuring accuracy	≥ 2 % with internal tension ≥ 1,0 % with calibrating magnet
Reproducibility	≥ 0,2 %
Output	analogue output ± 200 mV equivalent 1999 digits, connection for analogue-display, x-y recorder and A/D converter
Power supply	220 volts, 50 Hz or dry battery 9 V or accumulator 9 V
Time of operation	ca. 100 hours with battery ca. 50 hours with accumulator (not included in delivery)
Dimensions	145 mm x 80 mm x 38 mm (B x H x T)
Weight	ca. 0,8 kg, delivery in a black case