

Magnetometer PCE-MFM 4000



Magnetometer for AC and DC magnetic fields /

Precision and standard sensor / LCD display / SD data logger /

Serial interface / Tabletop device

The Gauss meter is used in the laboratory and quality assurance to measure the strength of magnetic fields. The Gauss meter is delivered with two different sensors. There is a magnetic field sensor for general measurements in the Gauss and milli-Tesla range, as well as a precision sensor for measurements in the milli Gauss and micro-Tesla range. The Gauss meter sensors have automatic temperature compensation. The Gauss meter can be used for measurements of DC and AC magnetic fields. The Gauss meter shows the polarity of the DC magnetic field on the display next to the measured value. This precise Gauss meter can be connected to a PC via serial interface for measurement value analysis.

The Gauss meter also has a data logging function. The Gauss meter is able to save the measured values on an SD memory card at a preset interval during the measurement. In addition to interval storage, up to 99 individual measured values can be stored in the memory at the push of a button. The measurement data are stored by the Gauss meter on the SD card in Excel format. This has the advantage that no additional software has to be used for the Gauss meter.

The Gauss meter is supplied as a table device and is particularly suitable for stationary measurements in QA, the test laboratory or also in research and. The bright display of the Gauss meter is easy to read at all times and shows all the necessary information about the magnetic field strength. The Gauss meter also has an automatic switch-off. The Gauss meter is supplied with 6 x 1.5V AA batteries or with a 9V plug-in power supply.

- ▶ Tabletop device with 2 sensors
 - General Probe Range: **0-3000 milli-Tesla (0-30,000 Gauss)**
 - Precision Probe Range: **0-300 micro-Tesla (0-3000 milli-Gauss)**
- ▶ For static and changing magnetic fields
- ▶ Highly accurate Transverse Hall sensor
- ▶ Different units selectable (mG / μ T)
- ▶ Data storage on SD memory card
- ▶ Automatic shutdown
- ▶ Serial interface
- ▶ Max.- min.- hold function

Subject to change

Specifications

Measuring function DC magnetic field precision sensor

Measuring range	± 30µT ± 300 µT ± 300 mG ± 3000 mG
Resolution	0.01 µT 0,1µT 0.1 mG 1 mG
Accuracy	± (2% of MB + 2 mG) @ ± 100µT / 1000 G

Measuring function DC magnetic field standard sensor

measuring range	± 300 mT ± 3000 mT ± 3000 G. ± 30000 G.
Resolution	0.01 mT 0.1 mT 0.1 g 1 G
Accuracy	± (5% of VAT + 10 Dgt)

Measuring function AC magnetic field standard sensor 50/60 Hz

Measuring range	30µT 300 µT 300 mG 3000 mG
Resolution	0.01 µT 0,1µT 0.1 mG 1 mG
Accuracy	± (2% of MB + 2 mG) @ 0 ... 100µT / 1000 G

Measuring function AC magnetic field precision sensor 50/60 Hz

Measuring range	30µT 300 µT
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Subject to change

	3000 mG
Resolution	0.01 μ T 0,1 μ T 0.1 mG 1 mG
Accuracy	$\pm$ (2% of MB + 2 mG) @ 0 ... 100 μ T / 1000 G

Measuring function AC magnetic field standard sensor
50/60 Hz

Measuring range	150 mT 1500 mT 1500 g 15000 G.
Resolution	0.01 mT 0.1 mT 0.1 g 1 G
Accuracy	$\pm$ (5% of VAT + 10 Dgt)

General technical data

Measuring rate	1 second
Measuring direction	Uniaxially
Display	LCD display
Features	Data hold / max. Min. Memory
Storage	Data logger single value memory
Data logger storage rate	1, 2, 5, 10, 30, 60, 120, 300, 600, 1800, 3600 s
Interface	Serial
Environmental conditions	0 ... 50°C / 32 ... 122°F, max. 85% RH
Power supply	6 x 1.5V AA batteries Optional 9V power supply
Current consumption	Approx. 138-mA
Dimension	
Device	292 x 236 x 98 mm / 11.5 x 9.3 x 3.9 in
Precision sensor	195 x 25 x 19 mm / 7.7 x 1 x 0.7 in
Standard sensor	177 x 29 x 17 mm / 7 x 1.1 x 0.7 in
Weight	275 g / < 1 lb

Subject to change

