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Magnetic Field Meter / Gaussmeter MP-4000

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Experience a revolution in measurement technology with the MP-4000 professional magnetic field meter from List-Magnetik. This instrument uses external digital axial and transverse field probes to make precise measurements of DC and AC magnetic fields, as well as pulsed fields of all types. Applications range from geomagnetic fields to field strengths of 40,000 A/cm.

The MP-4000 gaussmeter features a graphic LCD touch panel with an innovative user interface and a resolution of 320x480 pixels. An outstanding feature of the new probe electronics is the fast digitization of the measured values with a frequency of up to 200 kHz. This makes it possible to display waveforms with a duration of only 0.1 milliseconds. This gives you a precise picture of the course of a magnetic field pulse. Peak values and pulse durations are accurately displayed. In addition, alternating field waveforms can be recorded and stored at frequencies up to 20 kHz.

Especially at very low magnetic field strengths, absolutely interference-free and precise measurement is crucial. The measurement electronics work directly in the probe and digitize the signals from the Hall sensor.

In the area of stable DC fields, the scan function makes it possible to detect a magnetic field over a large area, which can then be statistically evaluated. Pulse fields can be perfectly displayed graphically in the MP-4000, providing an accurate picture of the course of a magnetic field pulse.

The device supports a variety of magnetic field measurement applications with flexible data storage, a combined digital and analog display, and peak value measurement. The wireless interface allows data transfer to a Windows PC and apps for Android and iOS. The USB interface allows permanent connection to an external power source.

An SCPI interface is implemented on the device, which allows the device to perform remote measurements in line operation and provide measured values. The connection is made via USB, which also ensures power supply and continuous operation.



Technical Data Magnetic Field Meter / Gaussmeter MP-4000

- Measuring units: A/cm - kA/m - Gauss / Oersted - Tesla switchable
- Applicable probes: Axial probe PM4-A, transversal probes PM4-T, PM4-TR, and PM4-TF
- Measuring range direct and alternating field / DC+AC: 0-40,000 A/cm
- Accuracy: in homogeneous field ± 1 A/cm to 50 A/cm, $\pm 2\%$ of measured value from 50 A/cm, $\pm 3\%$ of measured value from 20,000 A/cm
- Resolution: 0-1000 A/cm: 0.1 A/cm, > 1000 A/cm: 1 A/cm
- Frequency range AC: 2 Hz - 20 kHz
- Peak value memory: at pulse time ≥ 0.1 msec
- Display: LCD touch panel color 320x480 pixel
- Multilingual menu navigation: German, English, Italian, French, Spanish
- Data logger: 10,000 measurements, flexibly divisible
- Statistics: Count / Maximum / Minimum / Average / Standard deviation
- Interface: wireless interface for communication with Android, iOS and Windows
- App for Android, iOS, Windows: free of charge via Google Play Store, Apple App Store, List-Magnetik website
- External control: via USB and SCPI communication interface
- Power supply: 3x 1.5 V AA Mignon. External power supply can be connected via USB
- Operating time: approx. 25 hours with battery, unlimited with external power supply
- Dimensions: 150 x 85 x 35 mm, Weight: 320 g with batteries





Technical Data Measuring Probes for Magnetic Field Meter / Gaussmeter MP-4000

LM-MP4000-4A:
MP-4000 with Axial Field Probe PM4-A

Hall Sensor distance: 2.0 mm
Total length of the probe: 125 mm
Length of the probe handle: 65 mm
Diameter of the probe tube: 8.6 mm

LM-MP4000-4T:
MP-4000 with Transversal Field Probe PM4-T

Hall Sensor distance: 0.9 mm
Probe thickness: 1.8 mm
Total length of the probe: 127 mm
Length of the probe handle: 65 mm
Width of the probe tube: 5.6 mm

LM-MP4000-4TR:
MP-4000 with
Transversal Flexible Reed Probe PM4-TR

Hall Sensor distance: 0.35 mm
Probe thickness: 0.7 mm
Width of the probe reed: 3.5 mm
Length of the probe reed: 63 mm
Total length of the probe: 127 mm

LM-MP4000-4TF:
MP-4000 with
Transversal Fully Flexible Probe PM4-TF

Hall Sensor distance: 0.5 mm
Probe thickness: 1.2 mm
Total length of the probe: 127 mm
Length of the probe handle: 65 mm
Length of the probe reed: 62 mm
(in 90° direction when using the angle piece 56 mm)
Width of the probe reed: 4.3 mm

