

MAGNETIC FIELD METERS

MP-4000

Magnetic Field Meter/Gaussmeter



MP-4000

Magnetic field meter with unique measuring technology for professional measurement of magnetic direct and alternating fields as well as pulsed fields

Experience a revolution in measurement technology with the **List-Magnetik MP-4000** professional magnetic field meter.

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 any type. Applications range from geomagnetic fields to field strengths of 40,000 A/cm.

The **MP-4000** has a graphical 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 up to 20 kHz can be acquired and stored.

It supports a wide range of magnetic field measurement applications with flexible data storage, a combined digital and analog display, and peak value measurement. The Bluetooth interface allows data transfer to a Windows PC as well as to Android and iOS apps. The USB-C interface allows the device to be permanently connected to an external power source.

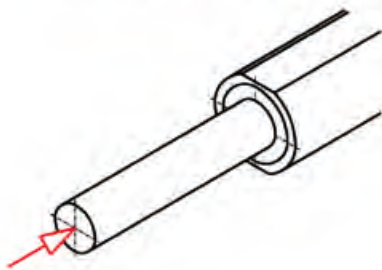
Especially at very low magnetic field strengths, an absolutely interference-free and precise measurement is crucial. The measurement electronics work directly in the probe and digitize the signals from the Hall sensor.



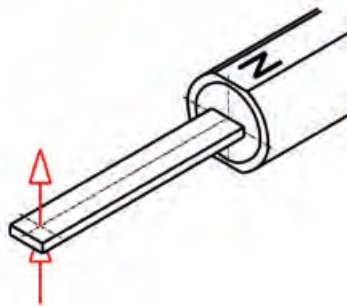
In the case of stable DC fields, the scan function makes it possible to detect a magnetic field by area, which can then be statistically evaluated. In the case of pulsed fields, the digital probe of the MP-4000 processes the measurements at a speed of less than 0.1 milliseconds. The measured values can be displayed graphically in the MP-4000, providing an accurate picture of the course of a magnetic field pulse.

PROBES for Magnetic Field Measuring

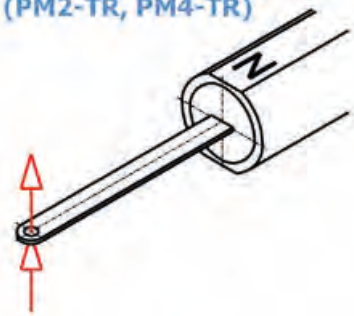
**Axial probe
(PM2-A, PM4-A)**



**Transversal probe
(PM2-T, PM4-T)**



**Transversal flexible reed probe
(PM2-TR, PM4-TR)**



What is the difference between axial and transversal probes?

Axial probes measure in the direction of the probe lance. Transversal probes measure at an angle of 90° to the probe. Transversal probes are more suitable for measurements in cavities or narrow pipes. Ultimately, it can be said that the transversal probe is the more universal tool. Because practically all measurements of the axial probe can be carried out transversally. One advantage of the List-Magnetik axial probe is the 2mm distance between the Hall sensor and the probe cap. In ball bearing production, this value has become the de facto standard for the probe.

Technical Data of Probes

	Axial Field Probe PM2-A	Axial Field Probe PM4-A	Transversal Field Probe PM2-T	Transversal Field Probe PM4-T	Transversal Flexible Reed Probe PM2-TR	Transversal Flexible Reed Probe PM4-TR
Measuring Range:	0-20,000 A/cm / 0-20,000 Gauss / 0-2 T	0-40,000 A/cm / 0-40,000 Gauss / 0-4 T	0-20,000 A/cm / 0-20,000 Gauss / 0-2 T	0-40,000 A/cm / 0-40,000 Gauss / 0-4 T	0-20,000 A/cm / 0-20,000 Gauss / 0-2 T	0-40,000 A/cm / 0-40,000 Gauss / 0-4 T
Length of the probe handle:	85 mm					
Total length of the probe:	150 mm		155 mm		150 mm	
Hall Sensor distance:	2.0 mm		0.9 mm		0.4 mm	
Probe thickness:	–		1.7 mm		0.7 mm	

All probes are plug-in type

Performance table and technical Data

MP-4000

	Magnetic Field Meter/Gaussmeter MP-4000
Measuring units	A/cm – kA/m – Gauss / Oersted – Tesla
Applicable probes	Axial probes PM2-A and PM4-A, transversal probes PM2-T, PM2-TR, PM4-T and PM4-TR
Measuring range direct field / DC	0-40,000 A/cm
Measuring range alternating field / AC	0-40,000 A/cm
Accuracy in homogeneous field	± 1 A/cm to 50 A/cm, ± 2% of measured value from 50 A/cm, ± 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
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	Bluetooth Low Energy interface for communication with Android, iOS and Windows
Power supply	3x 1.5 V AA Mignon. External power supply can be connected via USB-C
Operating time	approx. 25 hours with battery, unlimited with external power supply
Dimensions	150 x 85 x 35 mm
Weight	320 g with batteries
Warranty	12 months

1 A/cm = 0.1 kA/m = 1.256 Gauss = 1.256 Oersted = 0.1256 mT (Millitesla)



Lima Connect Windows

App for Android, iOS, Windows: free of charge via
Google Play Store, Apple App Store, List-Magnetik website



Lima Connect Android



Lima Connect iOS