



*The human eye – the symbol of our work:  
Quality assurance by control.  
Perfect in function and technology.  
Open for innovation.  
Recognition of change at early stage and intelligent implementation.  
The success is visible.*



## Magnetic Field Meters

### MP-1000 MP-2000 MP-1 M-5



Magnetic field meters are used for the precise measurement of all kinds of magnetic fields, steady and alternating fields as well as pulsed fields.

Magnetic field strengths ranging from the Earth's magnetic field to high intensity pulsed fields (**4000 kA/m**) can be measured. The handy field meters are very simple to operate.

The **MP-1000** and **MP-2000** Universal Field Meters make use of measuring probes (tangential and axial field probes) with a dedicated micro-controller digitising and linearising the probe signals directly inside the probe. This technique is highly immune to interference and permits extremely precise measurements even with high magnetic field strengths, where Hall probes no longer operate linearly. The instruments are suitable for measuring magnetic fields of all kinds, and also for determining stray fields when testing for cracks.

With instruments of this type, the probe cable is pluggable at both ends (display unit and probe) and is thus particularly service-friendly, as the user can simply replace the cable should it become faulty

The **MP-1** Residual Field Meter and the **M-5** Residual Field Detector are used specifically for measuring residual fields.

The residual field strengths in all kinds of ferromagnetic parts can be ascertained with the **MP-1** Residual Field Meter.

The magnetic field meters are delivered from the factory with a **Certificate of Calibration**, which guarantees traceability to national standards, at no extra cost.

All **MP** field meters are distinguished by their outstanding quality **Made in Germany**.



**LIST-MAGNETIK**  
**Dipl.-Ing. Heinrich List GmbH**

D-70771 Leinfelden-Echterdingen, Germany • Max-Lang-Str. 56/2  
Phone +49 (711) 90 36 31-0 • Fax +49 (711) 90 36 31-10  
E-Mail: info@list-magnetik.de • Internet: www.list-magnetik.de



*The human eye – the symbol of our work:  
Quality assurance by control.  
Perfect in function and technology.  
Open for innovation.  
Recognition of change at early stage and intelligent implementation.  
The success is visible.*



## Magnet Field Meter **MP-2000**

**MP-2000** Field Meter is the high end model with special functions, offering the professional user multiple possibilities:

- Measurement of all kinds of steady and alternating fields (True RMS)
- Very fast, integrated peak value store for measuring pulsed fields  $\geq 0.1$  msec
- Measuring range up to **4000 kA/m** max., switchable between Tesla – Gauss – A/cm – kA/m
- Illuminated graphic display with additional analogue measured value indication, automatic range selection
- Menu navigation in various languages
- Measurement store (10.000 measurements), divisible into up to 100 application memories
- Integrated RS232 and USB - wireless interfaces for documenting the measurement results on a PC or printer
- Can be used with various tangential, axial and reed probes

Scope of supply: without measuring probe, incl. Certificate of Calibration, probe cable, USB radio receiver and case

### Optionals:

Precision calibration standard 180 A/cm  
Thermo Printer **TOP-PRINT**

### Software:

Data Transfer Software **TRANSFER**  
EXCEL-based Data Transfer Software **TRANSFER-EXCEL**  
Graphic Evaluation Software **STAT-6**



## Magnet Field Meter **MP-1000**



**MP-1000** Magnetic Field Meter is a handy universal instrument for measuring all magnetic fields. Intended for fast, on-site measurements, it comes without a measurement store or interface.

- Measurement of all kinds of steady and alternating fields (True-RMS)
- Very fast, integrated peak value store for measuring-pulsed fields  $\geq 0.1$  msec
- Measuring range up to 2000 kA/m, switchable between Gauss(Oe) and A/cm
- Simple, one-button operation; automatic range selection
- Can be used with tangential, axial or reed probes

Scope of supply: without measuring probe, incl. Certificate of Calibration, probe cable and case

### Optional:

Precision calibration standard 180 A/cm



**LIST-MAGNETIK**  
**Dipl.-Ing. Heinrich List GmbH**

D-70771 Leinfelden-Echterdingen, Germany • Max-Lang-Str. 56/2  
Phone +49 (711) 90 36 31-0 • Fax +49 (711) 90 36 31-10  
E-Mail: info@list-magnetik.de • Internet: www.list-magnetik.de

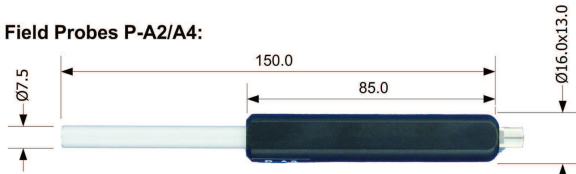


*The human eye – the symbol of our work:  
Quality assurance by control.  
Perfect in function and technology.  
Open for innovation.  
Recognition of change at early stage and intelligent implementation.  
The success is visible.*

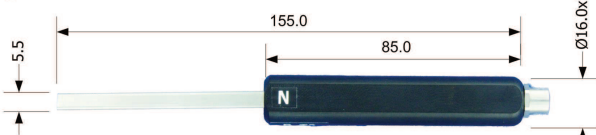


## Measuring Probes for Magnetic Field Meters **MP-1000** and **MP-2000**

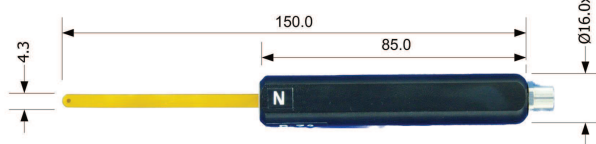
**Axial Field Probes P-A2/A4:**



**Tangential Field Probes P-T2/T4:** 1.7 mm thickness



**Flexible Reed Probes P-Z2/Z4:** 0.9 mm thickness



For the Field Meters **MP-1000** and **MP-2000** these axial field, tangential field and flexible reed probes are available.  
All probes are of plug-in design.

Model	MP-1000	MP-2000
Axial field probe P-A2 Measuring range 0 – 2000 kA/m	X	X
Tangential field probe P-T2 Measuring range 0 – 2000 kA/m	X	X
Flexible reed probe P-Z2 Measuring range 0 – 2000 kA/m	X	X
Axial field probe P-A4 Measuring range 0 – 4000 kA/m	-	X
Tangential field probe P-T4 Measuring range 0 – 4000 kA/m	-	X
Flexible reed probe P-Z4 Measuring range 0 – 4000 kA/m	-	X

1kA/m = 10 A/cm = 12.56 (Oe) Gauss = 1.256 mT

## Residual Magnetic Field Meter **MP-1**

The **MP-1** Field Meter has an analogue display with 2 measuring ranges for determining the residual magnetism on ferro-magnetic steel parts, particularly on demagnetised parts.

- 2 measuring ranges, 0 - 5 A/cm and 0 - 20 A/cm, corresponding to the industry standard for the ball-bearing industry
- Axial field probe with defined measuring distance of 2.0 mm to the measuring surface
- Integrated battery indication

Scope of supply: MP-1 with axial field probe, incl. Certificate of Calibration and case

### Optional:

Calibration standard 5 A/cm



## Residual Field Testing Device **M-5**



The **M-5** residual field detector is a simple handy instrument for roughly determining the residual magnetism in ferromagnetic steel parts. It consists of a rotating magnet system which is deflected accordingly under the influence of an external field.

- Measuring range 0 - 20 Gauss (0 – 16 A/cm) with centre zero (polarity indication)

Scope of supply: without Certificate of Calibration, with case



# LIST-MAGNETIK

Dipl.-Ing. Heinrich List GmbH

D-70771 Leinfelden-Echterdingen, Germany • Max-Lang-Str. 56/2

Phone +49 (711) 90 36 31-0 • Fax +49 (711) 90 36 31-10

E-Mail: info@list-magnetik.de • Internet: www.list-magnetik.de



*The human eye – the symbol of our work:  
Quality assurance by control.  
Perfect in function and technology.  
Open for innovation.  
Recognition of change at early stage and intelligent implementation.  
The success is visible.*



## Magnet Pole Detector M-8

Small pen-shaped pocket instrument

For determining the magnetic polarity of ferromagnetic parts or magnetised magnets and magnetic circuits. A small magnetic disk suspended on 4 points aligns itself to even weak external magnetic fields (including the Earth's magnetic field).

Scope of supply: without Certificate of Calibration, with case



### Technical Data

	MP-2000	MP-1000	MP-1	M-5
Display:	Illuminated graphic display	3-digit	Analogue	Analogue
Measurement Units:	kA/m – A/cm – Gauss(Oe) – Tesla selectable	A/cm – Gauss(Oe) selectable	A/cm	Gauss(Oe)
Measuring Ranges:	DC: 0–4000 kA/m DC: 0–40.000 A/cm (Gauss/Oe) DC: 0–4000 mT AC: 20–20.000A/cm (Gauss/Oe) AC: 20–2000 kA/m AC: 20–2000 mT Automatic Range Selection	DC: 0–20.000 A/cm (Gauss/Oe) AC: 20–20.000 A/cm (Gauss/Oe) Automatic Range Selection	0–5 A/cm 0–20 A/cm Manually pre-selectable	0 – 20 Gauss(Oe)
Resolution:	0 – 200 A/cm (Gauss): 0.1 A/cm (G) > 200 A/cm (Gauss): 1 A/cm (G) > 10.000 A/cm (Gauss): 1 kA/m (kG) 0 – 20 kA/m (mT): 0.01 kA/m(mT) > 20 kA/m (mT): 0.1 kA/m (mT) > 1000 kA/m (mT): 1 kA/m (mT)	0 – 100 A/cm (Gauss): 0.1 A/cm (G) > 100 A/cm (Gauss) : 1 A/cm (G) >10.000 A/cm (Gauss):0.1 kA/cm (kG)	-	-
Accuracy (in homogeneous field):	DC/AC range 0-2000 kA/m ± 2% > 2000 KA/m ± 3%	DC/AC range 0-2000 kA/m ± 2%	± 3%	± 15%
AC Frequency Range: (AC = RMS value)	10 Hz – 5 KHz		-	-
Peak Hold:	Impulse duration >= 0.1 msec		-	-
For use with measuring probes:	Axial and Tangential Field Probes: P-A2 / P-T2 / P-Z2 P-A4 / P-T4 / P-Z4	Axial and Tangential Field Probes: P-A2 / P-T2 / P-Z2	Axial Probe	-
Power Supply:	3 x 1.5V AA Mignon	2 x 1.5V AA Mignon	1 x 1.5 V Baby	-
Operating Time:	approx. 100 h	approx. 80 h	approx. 100 h	-
Automatic Switch-Off:	2 min. if no change in measurement	2 min. if no change in measurement	-	-
Battery Indication:	X	X	X	-
Measurement Store:	10.000 measurements	-	-	-
Applications Memory:	max. 100	-	-	-
Multilingual Menu:	X	-	-	-
Statistical Evaluation MAX. MIN. MEAN. NO. STD.DEV.	X	-	-	-
Display of statistics and stored Measurements:	X	-	-	-
Analogue + digital measured value display with automatic range selection:	X	-	-	-
RS232 Interface:	X	-	-	-
Wireless – USB Interface:	X	-	-	-
Dimensions:	198 x 92 x 35 mm	105 x 65 x 26 mm	83 x 122 x 40 mm	Ø 50 x 22 mm
Weight with Batteries:	265 g	137 g	300 g	60 g



**LIST-MAGNETIK**  
Dipl.-Ing. Heinrich List GmbH

D-70771 Leinfelden-Echterdingen, Germany • Max-Lang-Str. 56/2  
Phone +49 (711) 90 36 31-0 • Fax +49 (711) 90 36 31-10  
E-Mail: info@list-magnetik.de • Internet: www.list-magnetik.de