



- Measurement of all hard magnetic materials (AlNiCo, Ferrite, PtCo, SmCo, NdFeB, plastic bonded)
- Measurement with constant flux alteration $d\Phi/dt$
- Measurement with J-compensated surrounding coils, pole or field coils
- Measurement at temperatures from -45°C up to 200°C
- Fully computer-controlled measuring system
- Real time display of hysteresis during measurement
- MAG Expert software for measurement, display and integration into QM systems
- Menu-assisted user commands
- Windows user interface

Measuring categories

- Remanence**
- Coercive field strength**
- Maximum energy product**
- Maximum field strength**
- Maximum polarization**
- Hysteresis display**

Measuring Technology for Hard Magnetic Materials

Hystograph HG 200

Hystograph HG 200

Operating principle

Determination of the magnetic properties of hard magnetic materials.

Measuring procedure according to IEC 60404-5.

This process runs with constant change of flux $d\Phi/dt$ and avoids interference caused by eddy currents and phase displacement between the field strength and polarization measurements. The measurement is highly accurate and has high reproducibility. Processor-controlled monitoring and regulation of the increase in current.

Processing of the measured values via MAG Expert software for measurement, display and integration into QM systems.

Consisting of measuring table with voltage supply unit and measuring electronics, electromagnet and computer hardware with MAG Expert evaluation software.

Surrounding coils or pole and field coils as measuring fixture with automatic probe identification. False measurements due to wrong input of parameters are ruled out. The electromagnet has interchangeable measuring poles and can be supplied with measuring poles in customized sizes.

The hystograph measuring system can be complemented with different measuring coils and poles, electromagnets for high field strengths and field homogeneity as well as with a system for measuring at temperatures from -45°C up to 200°C, consisting of temperature control unit, heating poles and temperature surrounding coil.

Pole coils with diameters of 3 – 9 mm. J-compensated surrounding coils, temperature surrounding coils with diameters 10 – 60 mm and also rectangular or customized sizes. All coils and measuring poles in special sizes and shapes.

Technical Data

Measuring fixture	2 x drift-free Fluxmeter
Measuring ranges	1, 10, 100 mVs and ± 1 Vs
Drift	$< \pm 1 \mu$ Vs/min
Measuring coils	surrounding coils, pole coils, field coils
Power supply	0 to ± 125 V, 0 to ± 25 A (50A optional)
Electromagnet	with interchangeable poles and coil fixture
Maximum field strength	1,200 – 1,800 kA/m; 2,400 kA/m; 3,200 kA/m (dependent on air gap)
Air gap	0 – 80 mm
Measuring poles	interchangeable
Computer	PC, monitor, printer
Software	MAG Expert under Windows
Cabinet	measuring table with container
Dimensions	760 x 1,760 x 800 mm (height x width x depth)
Mains supply	3 x 200 – 3 x 400V AC, 16A 50/60Hz
Other measuring systems	Product divisions
AC/DC Hystograph	Measuring Technology for Soft Magnetic Materials
XYZ Field Scanner	Magnetizing Technology
Fluxmeter	Services
Gaussmeter	



Electromagnet
with heating poles



J-compensated coil



Segment pole caps



Field coil



Potential coil

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