BROCKHAUS MESSTECHNIK
Advanced Measuring Technologies

Hystograph

- Measurement of all hard magnetic materials (AlNiCo, ferrite, SmCo, NdFeB, plastic composite)
- Measurement with constant flux alteration dΦ/dt
- Measurement with J-compensated surrounding coils, pole or field coils
- Measurement at higher temperatures up to 200°C
- Fully computer-controlled measuring system
- Real time display of hysteresis during measurement
- MAG Expert software for measurement, presentation 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

Operating principles

Determination of the magnetic properties of hard magnetic materials.

Measuring procedure according to IEC 60404-5.

This process runs with constant flux alteration dΦ/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, presentation 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 EEPROM for automatic probe identification. False measurements due to wrong input of parameters are ruled out. The electromagnet has interchangeable pole pieces and is supplied with two sets of these measuring poles (Ø 80 mm and Ø 92 mm).

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 up to 200°C, consisting of temperature control unit, heating poles and temperature surrounding coil.
Measuring poles with diameters of 70-80 mm. Pole coils with diameters 3 – 9 mm.
J-compensated surrounding coils and temperature surrounding coils with diameters 10 – 40 mm. All coils and measuring poles in special sizes and shapes.

Technical Data

Measuring fixture:	2 drift-free Fluxmeters F 01
Measuring ranges:	1, 10, 100 mVs and +/- 1 Vs
Drift:	< ± 1 µVs/min
Measuring coils:	surrounding coils, pole coils, field coils
Power supply:	0 to ± 125 V, 0 to ± 25 A, optionally to ± 50 A
Electromagnet:	with interchangeable poles and coil fixture
Maximum field strength:	1.500 – 1.800 kA/m (dependent on air gap), optionally 2.500 kA/m
Air gap:	0 – 80 mm
Measuring poles:	interchangeable with a maximum diameter of 92 mm
Computer:	PC, monitor, printer
Software:	MAG Expert under Windows
Cabinet:	measuring table with container
Dimensions:	760 x 1760 x 800 mm (height x width x depth)
Mains supply:	3 x 200 – 3 x 400 V, 16 A 50/60 Hz


Electromagnet with heating pole


J-compensated coil


Pole, field and surrounding coil


Field coil


Potential coil


Hystograph


AC/DC-System


Fluxmeter


Gaussmeter

Other measuring systems:

- AC/DC-Hystograph
- Fluxmeter
- Gaussmeter

Other products:

- Measuring Technology for Soft Magnetic Materials
- Magnetizing Technology
- Internet Marketplace for Used Instruments
- Services

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