

C 510 Measuring Instrument



- Determination of the magnetic properties of electrical steel in all common quality grades, thicknesses and geometries and of other soft magnetic materials
- Quality control of strip steel, punched parts, stators, transformer or ring cores
- User commands and control via PC under Windows
- Versatile
- Easy to operate
- Fully digitalized measuring unit
- Three coil connectors for different measuring requirements
- Module for the measurement of rings, ring strip cores, stacked punched parts etc.
- Possibility to extend the modules to include Epstein measurements
- MPG Expert software for measurement, presentation and integration into QM systems

Measuring categories

- Specific hysteresis loss
- Maximum polarization
- Effective polarization
- Maximum field strength
- Effective field strength
- Remanence
- Coercive field strength
- Permeability
- Specific apparent output
- Hysteresis display
- Form factor
- J(H) values for graphic display

Operating Principle

The sample is exposed to a defined magnetic field within a measuring coil. A magnetic flux is created inside the material.

The required current is supplied by a power amplifier.

The current is measured by means of a temperature-stable and induction-free precision resistor (shunt) or by field coils.

Polarization is determined by measuring the induced voltage, and then conversion and integration by means of a 16 bit processor.

Parallel recording of H and J sizes in separate recording systems guarantees absolutely parallel measurement. Errors in measurement due to phase displacement are thereby avoided.

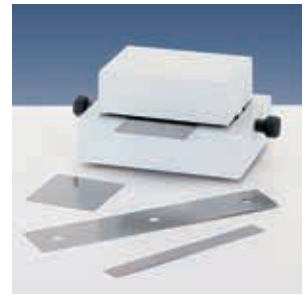
The processor calculates all the values from the differentiated and integrated parameters.

Measuring coils

- SST sensor for "as delivered" slit strips, following IEC 60404-3
- C 510 sensor for punched parts and small cuts
- Measuring module for rings, stators and transformer cores

Technical Data

Repeatability:	0,2 %
Comparability of the measuring results:	IEC 60404-3
Setting accuracy of the nominal value:	IEC 60404-3
Maximum current:	± 5 A
Maximum voltage:	± 32 V
Coil connectors:	3
Operating mode:	PC / software
Dimensions:	tower 300 x 560 x 540 mm (width X depth X height)
Power supply:	105 – 125 V AC or 220 V AC, 50 / 60 Hz



Strip measuring coil



Punched part sensor



Ring core sensor



C 510

MPG

Inline EBA

Franklin Tester

Other measuring systems:

- Electrical Steel Measuring Unit: MPG 100 D
- Inline Measuring System: EBA
- Surface Resistance Measuring Instrument: Franklin Tester

Other products:

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

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