



KOERZIMAT 1.097 MS

Systems for measuring the saturation polarization σ_s and J_s



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Material evaluation based on magnetic properties. Magnetic values such as weight-specific saturation polarization σ_s and volume-specific saturation polarization J_s correlate with numerous important process parameters and material properties in the production of sintered hard metals and powder-metallurgical components.

The KOERZIMAT 1.097 measuring system by FOERSTER facilitates the accurate, automatic, and fast measurement of the weight-specific saturation polarization σ_s and volume-specific saturation polarization J_s . The largely geometry-free measurement is particularly suitable for testing samples with complex shapes.

The KOERZIMAT 1.097 MS is used for applications such as controlling the sintering level during hard metal sintering processes and determining the tungsten content dissolved in cobalt as well as the free iron, cobalt, and nickel content in powder / hard metals. The saturation polarization J_s in Tesla can also be determined in soft magnetic components of magnetic circuits.

YOUR ADVANTAGES AT A GLANCE

Saturation magnetization measurement: Determination of the saturation magnetism in accordance with IEC 60404-14

Magnetic phase analysis: Determination of the magnetic phase in austenitic steel

PC-controlled measuring system

Geometry-free measurement

Compact design: Lightweight, extremely compact design

Measurement control software: Software for controlling individual and series measurements

Data management: Database for collecting measurement data and parameter sets

Customer-specific reports

Remote port: Remote port for automation, data access, etc.

TECHNICAL INFORMATION

SENSITIVITY:	2*10 – 11 Vsm (MS 26 × 60) 1*10 – 10 Vsm (MS 31 × 69)
MAGNETIC FLUX DENSITY (IN GEOMETRIC CENTER):	≥ 1.00 T (MS 26 × 60) ≥ 1.05 T (MS 31 × 69)
MEASUREMENT UNCERTAINTY	0.5 % of measured value
SENSOR ELEMENT:	Helmholtz detection coils with fluxmeter
POWER SUPPLY:	100 – 240 VAC, 50/60 Hz
COMPRESSED-AIR SUPPLY:	6 bar (MS 31 × 69)

NORMS

ASTM B886: Describes the method for determining the saturation magnetism of sintered hard metals.

EN IEC 60404-14: Describes the determination of the magnetic saturation dipole moment jS using moment coils in open magnetic circuits. The method described above is advantageous as it provides the option to perform measurements regardless of the geometry of the sample. It is not required to manufacture special measuring samples.



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