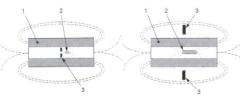
# 10 REASONS WHY KOERZIMAT for new IEC 60404-7



Coercivity measurement (up to 160 kA/m) in an open magnetic circuit In Jan 2019, IEC 60404-7 standard 2<sup>nd</sup> edition replaced the old from 1982

KOERZIMAT® Measuring coercivity since 1950





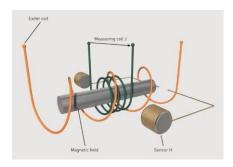
1-Coil, 2-Specimen and 3-Differential fluxgate probe

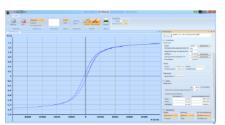
Method B

Method A b)



J(H) Extension Module





#### New IEC 60404-7 2<sup>nd</sup> edition related

- VSM has been excluded from the normative part of the revised standard
- Hall sensor is no more accepted for complex shape other than ellipsoid type specimen i.e., fluxgate sensor is a must to measure integrated value of complex shape and/or module specimen (Method B)
- Instruments without magnetic shielding to compensate disturbing magnetic fields (ex. earth's magnetic field) no more conforms to standard
- New edition additionally requests a compensation calculation of the magnetic shielding
- The standard explicitly prescribes the procedure of reducing eddy-currents impact on HcJ value including reduction of magnetization amplitude and increase of magnetization time.
- KOERZIMAT Internal Probe has been included in standard, Method A b) for small specimens with low stray flux (special alloys, cemented carbide etc.)

### JH Extension Module realizes Hysteresis at low cost

- Industrial standard has been toroidal specimen and need to prepare expensive toroidal specimen. Simple round bar can be used now for hysteresis measurement by KOERIMAT.
- Realize several times lower investment cost to replace expensive conventional BH loop tracing system. Shortcomings of toroidal specimen are neutralized.

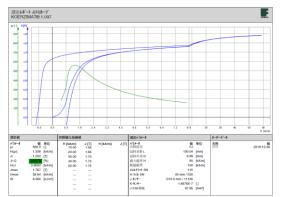
## KOERZIMAT's original strength

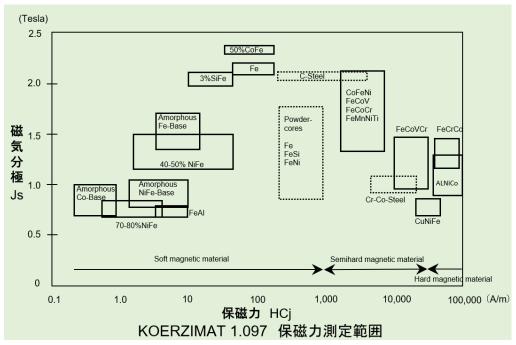
- Quick & easy, requiring no specimen preparation, measurement realize high throughput in quality control of production, university, research lab and service lab use etc.
- High power design realized larger uniform magnetic field space and enables integral measurement of assembled / module parts.

# Coercive Field Strength, J(H) Hysteresis & Permeability, Magnetic Saturation KOERZIMAT® 1.097 HCJ

### Abundant applications and installed base

- Inspection of magnetic properties for soft magnetic materials to semi-hard magnetic materials
  (Plate / bar / thin film / powder / powder metallurgy / sintered metal etc.)
- Quality control of soft magnetic materials to semihard magnetic components
  (Solenoid valve / electrical motor components/ magnetic head / relay / transformer / watch, etc.)
- Investigation of magnetic effects of materials in manufacturing process
  (Degree of heat treatment / plating / polishing / pressing / cutting, etc.)
- Coercivity measurement of powder metal parts (cemented carbides, iron sinter components) and laminated electromagnetic materials





## • Key Specifications:

Coercive force measurement range (auto range 0 to 100kA / m) / coercive force measurement time (fix 3 seconds) / magnetization time (1 to 40 seconds, adjustable) / HCJ measurement error (less than  $\pm$  1% of measured value) / coil Inner diameter (40mm, 60mm) / Maximum magnetizing magnetic field strength  $\,$  450kA / m / 6-16mm round bar specimen / Permeability measurement range  $\mu r$  100–2500

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