Coercive Field Strength, Magnetic Saturation, J(H) Hysteresis KOERZIMAT<sup>®</sup>1.097 HCJ Measuring coercivity since 1950



The world's only one Coerzimeter that can measure both magnetic hysteresis curve with round bar and coercive force of components fully compliant with the new IEC 60404-7 standard





J(H) Extension Module





## JH Module realizes hysteresis loop at low cost

Industrial standard has been expensive toroidal specimen. KOERZIMAT +J(H) Extension Module enables hysteresis measurement with simple round bar by several times smaller investment than the conventional measuring equipment.

• Closed loop measuring for straight rods requires very precise machining and tight contact with pushing against yoke for eliminating any gap. It can create internal stress and lead to wrong measurement. Time consuming and operator skill dependent unsuitable for general industrial products. Quick & easy, requiring no specimen preparation measurement realize high throughput in quality control of production, university, research lab and service lab use etc. Coercive force measurement time is only 3 seconds, and magnetization time is adjustable.

High power design realized larger uniform magnetic field space and enables integral coercivity measurement of assembled / module parts.

## Regarding IEC 60404-7 "Coercivity measurement of magnetic materials in an open magnetic circuit (160 kA / m or less)" revised for the first time in 37 years

• VSM has been excluded from the normative part of the revised standard because restriction such as specimen dimensions up to 5mm ≥ and measurement range HcJ ≥1k/m did not meet 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.

• KOERZIMAT Internal Probe has been included in the new standard, Method A b) for small specimens with low stray flux (special alloys, cemented carbide etc.)

< <u>Key Specifications</u> > : 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 µr 100–2500

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Forster's equipment manufacturing plant is ISO9001 and ISO14001 certified