

- Determination of surface insulation resistance of coated electrical steel sheets, punched parts and individual samples
- Quality control of insulation coating
- Manual or fully automatic version
- Mechanical construction: pneumatic or hydraulic pressure generation
- Control and evaluation software
- Preparation and execution of the measuring process according to IEC 60404-11 measuring method A, ASTM-Standard A717 and JIS (optional)

Measuring categories

Surface resistance

Resistance distribution

Franklin Tester FT 600

Operating principle

Measuring the total current which flows through the insulation coating of the sample when pressure is applied via several contacts. Conversion of the measured value to an equivalent surface resistance. Especially suitable for quality control of insulation coating.

The test head consists of two longitudinal rows of five vertically mounted steel rods which are free to move axially against the surrounding spiral springs. A stainless steel measuring contact is positioned at each end of each rod. It is possible to move the test head pneumatically or hydraulically (optional) perpendicular to a surface.

The testing contacts are pressed onto the insulation coating with a pressure of 129N per electrode. An electrical contact to the steel sheet is created with a spiral drill. If the resistance is finite a current inversely proportional to the resistance flows through the insulation coating. From the measured current above all 10 electrodes the resistance coefficient is calculated. Additionally the measured current per electrode is displayed.

Available versions:

- Mechanics with pneumatic (standard) or hydraulic (optional) force generation
- Control unit with display (software optional) or multi channel device (software obligatory)
- Automatic version with one- or double-sided measurement
- Inline version for operation in production lines
- Customized solutions: Fully automatic measurement incl. comprehensive monitoring via FRA-Expert software and integration into quality management systems, configuration of measuring station and customer-specific software

Options:

- Force measuring unit for ranges from 0 to 5000 N
- Heating unit up to 150°C
- Extended sample bar
- Operation by foot switch
- Customized systems for higher pressing force

Technical Data

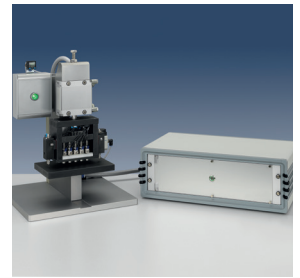
Testing voltage	0.5V, 0.1 mV resolution
Accuracy of settings	better than $\pm 0.5\%$
System accuracy	better than $\pm 0.5\%$
Test head	electr. contact: 10 contact pins total area: $6.45\text{cm}^2 \pm 0.5\%$ optional for JIS total area: 10cm^2
Pressing force	2N per mm^2 acc. to IEC 60404-11 up to 7N per mm^2 for customized systems
Weight	control unit approx. 9kg mechanical device approx. 44kg
Supply voltage	220V AC, 50/60Hz
Pneumatic version	compressed air required, min. 5 bar
Operating system of connected PC	Windows 7 / Win 10, 32 and 64 bit

Other measuring systems

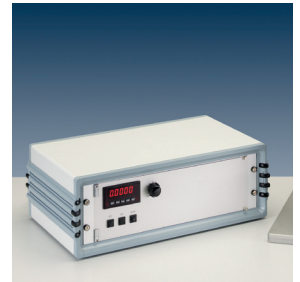
Electrical Steel: C 510
Electrical Steel: MPG 200 D
Inline: EBA

Product divisions

Measuring Technology for Hard Magnetic Materials
Magnetizing Technology
Services



Laboratory version



Control unit with display