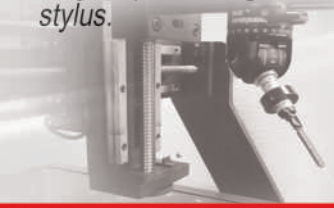
MMS

3-AXIS MAGNETIC FIELD MAPPER SOLUTIONS

SENIS Magnetic Field Mapping Systems allow very accurate, repeatable and fast 3D mapping of magnetic fields around permanent and electromagnets, with high spatial resolution. Our unique Hall probes measure all three field components (Bx, By, Bz) simultaneously at the same point. The probe damage protection, simple dimensional measurements and absolute reference for magnet positioning are achieved with an integrated touch stylus.



The measured magnetic field map is graphically presented as customized 2D or 3D graphs and can be easily exported for further analysis.

KEY FEATURES

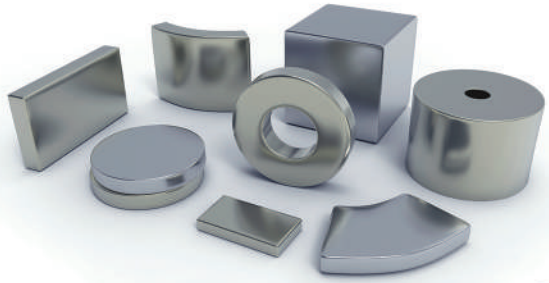
- *Very thin and long, fully integrated 3-axis Hall probe with field sensitive volume smaller than 150x10x150um*
- *Magnetic field measurement accuracy: better than 0.1%*
- *Magnetic resolution: <10uT in the range 50mT up to 2T*
- *Wide frequency range: DC - 25kHz (75kHz, single axis)*
- *Accurate probe positioning: 2um linear, 0.02° rotational*
- *Adjustable scanning speed: up to 50 mm/s, 360 °/s*
- *Point-to-point and continuous "on-the-fly" scanning*
- *Large scanning volume (X x Y x Z): 500 x 500 x 500 mm³*
- *Specialized, interchangeable probes for rotor testing, eddy-current probes for crack detection, sliding probe for in-contact measurements, pickup coils for EMC etc.*

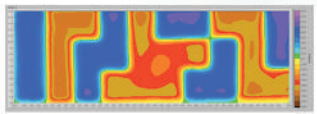
APPLICATIONS

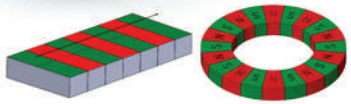
SENIS
magnetic & current measurement

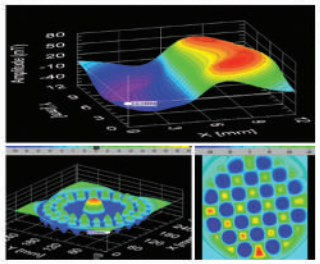
MAPPING OF PERMANET MAGNETS

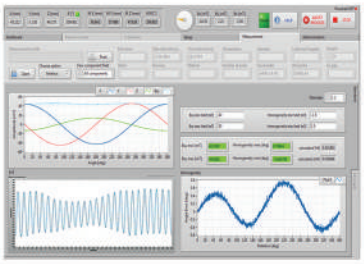
Analysis of magnets for linear and angular position sensors, multiple linear and rotary encoders, multiple coded plates for automotive and consumer applications. Mapping of three magnetic field components, min/max values, FFT, number of magnetic poles, pole disposition, etc.





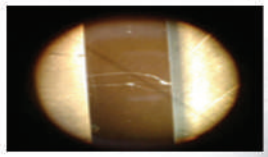


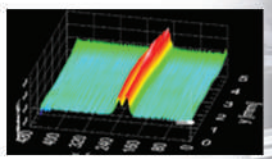


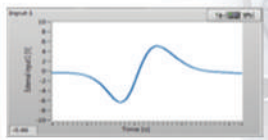


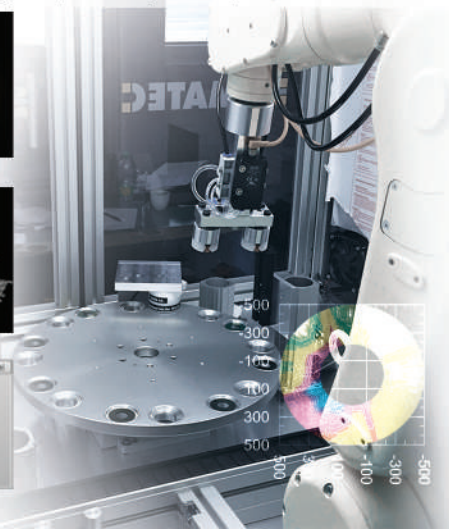
CRACKS AND INHOMOGENEITY DETECTION

Detection of cracks and material inhomogeneities of magnetized and even non-magnetized blanks using our special eddy-current probe.



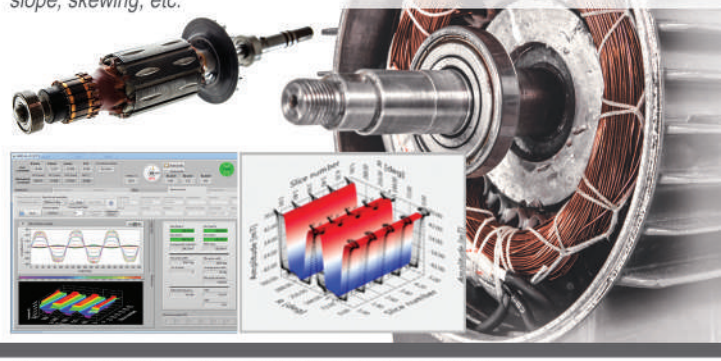






ROTORS, MOTORS AND AIR GAPS INSPECTION

Analysis of magnetic field distribution of rotors, stators, motors and in the air gap between them using long and ultra-thin Hall probes. 3D mapping, min/max values, number of magnetic poles, pole width, pole disposition, slope, skewing, etc.



AC MAGNETIC FIELD MAPPING AND EMC

High frequency magnetic field mapping of inductive heaters, cookers and electromagnets with HF Hall probes (up to 75kHz). Our miniaturized pickup coils allow to measure electromagnetic compatibility (EMC) of electronic components and devices.

LOW MAGNETIC FIELD MAPPING

Measurement of magnetic field mapping around smartphones, tablets, demagnetized parts, magnetic strips etc. using low-field Hall and AMR probes.