

CMOS-MagView

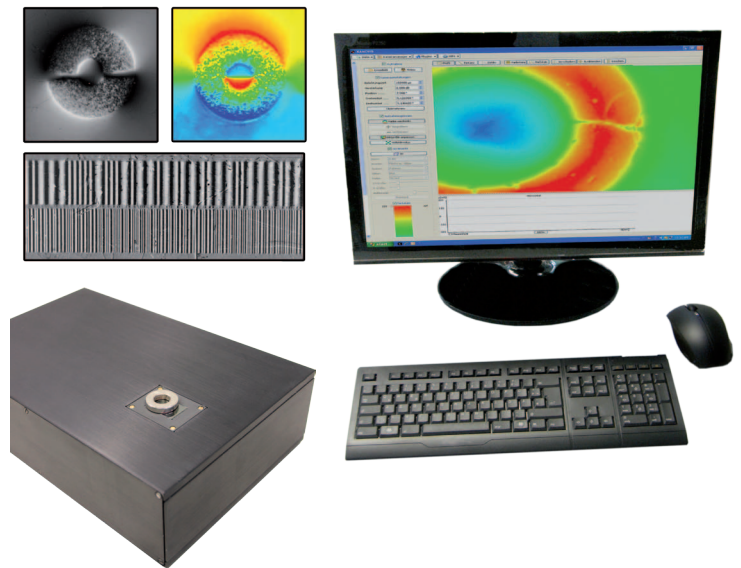
Magneto-optical visualization of magnetic fields

The CMOS-MagView is a digital magneto-optical readout system for fast and accurate visualization of magnetic stray field structures. The sensor system including a user software supporting false-color imaging is suitable for real-time stray field analysis and quality testings of magnets. Magnetic stray fields of magnetic stripe cards, magnetic encoders and di- and multi-pole magnets can be visualized.

Visualization of magnetic fields

The CMOS-MagView can visualize magnetic flux densities and their changes in optical resolution. Inhomogeneities and cracks in ferromagnetic materials can be shown directly using sensitive magneto-optical sensor.

For a measurement the sensor is brought into direct contact to the surface containing the magnetic information. The MagView-software enables the analysis of magnetization properties and the documentation of the specimen.



Function principle

- Integrated homogeneous, linear polarized illumination (LED)
- Change of the polarization status of light within the magneto-optical sensor depending on the applied local magnetic field
- Analysis of local intensity changes via second polarizer
- Recording of the magneto-optical image via CMOS-digital camera

Technical features

- Direct visualization of magnetic fields
- Investigation in visible spectral range
- Analysis of: polarity, homogeneity, distribution of the magnetic material and magnetization properties
- Field range: 0.01 to 160 kA/m (0.1 to 2,000 Oe)
- Sensor size: up to 50 x 60 mm
- Resolution: 25 μm