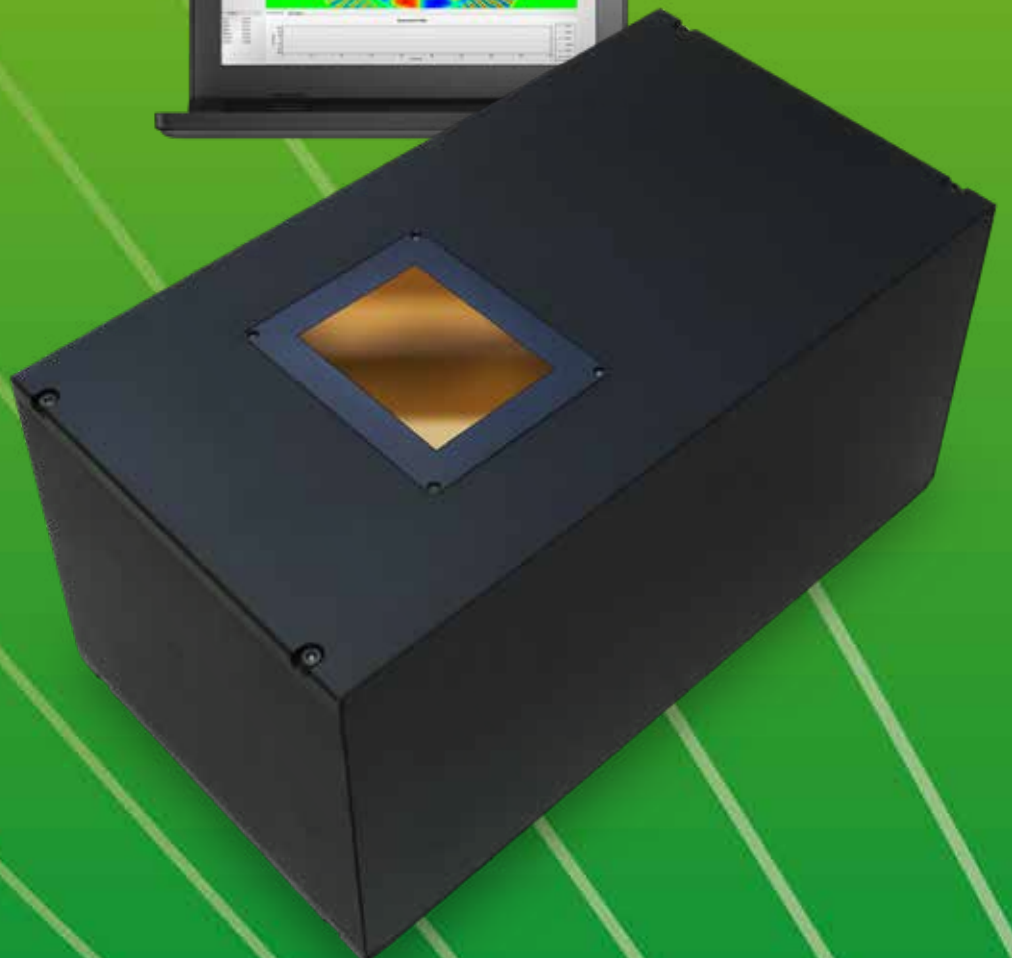
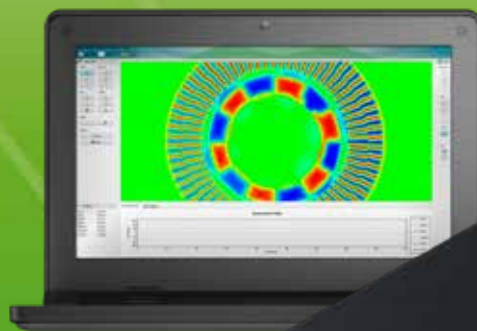


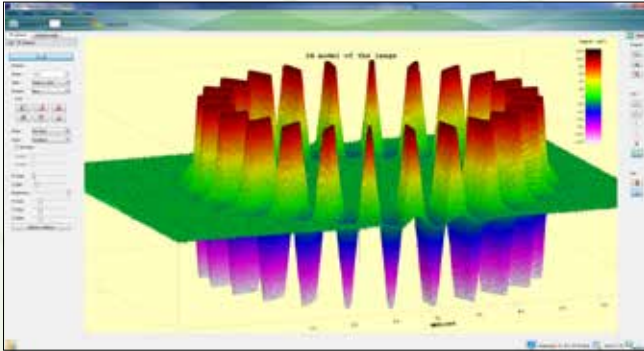


**cmos-magview**  
by matesy

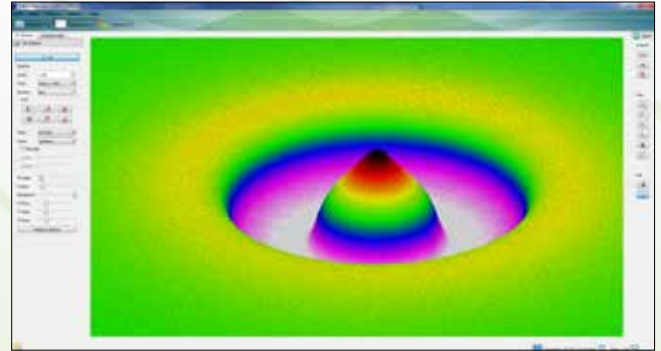
**Magneto-Optical Visualization**



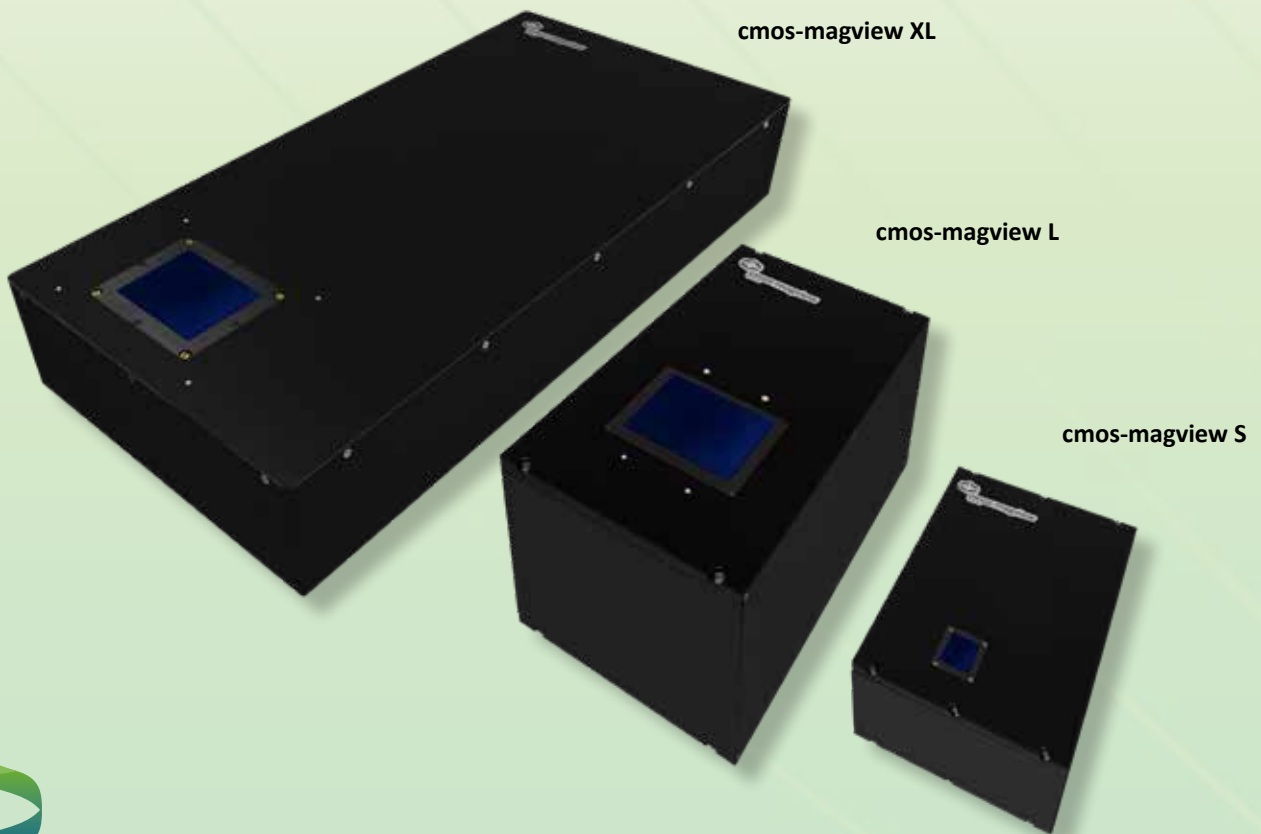
## Magneto-optical visualization of magnetic fields



3D-visualization of a rotary encoder



3D-visualization of a ring magnet



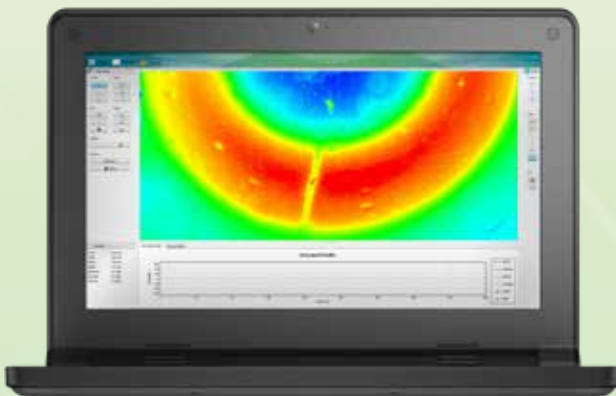
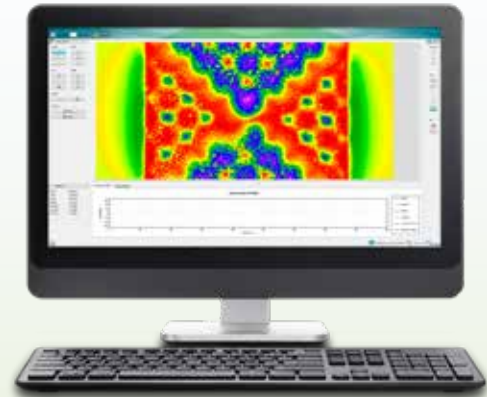
**cmos-magview**  
by matesy

The **cmos-magview** is a digital magneto-optical system for the fast and accurate visualization of magnetic stray field structures. The sensor system allows real-time stray field analyses and quality testing of magnetic materials. Magnetic stray fields of, for instance, magnetic stripe cards, magnetic encoders and di- and multi-pole magnets can be visualized. A comprehensive user Software illustrates the images in false color.

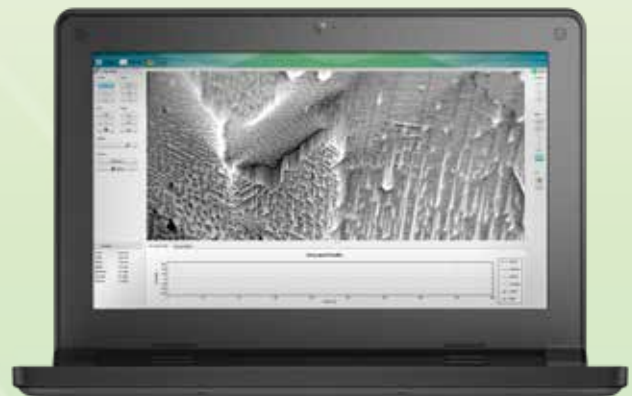
## Visualization

The cmos-magview can visualize the distribution and geometric orientation of the magnetic flux density and its changes in high resolution. Inhomogeneities and cracks in ferromagnetic materials can be detected directly using sensitive magneto-optical sensors.

For a measurement the sensor is applied directly to the surface containing the magnetic information. The cmos-magview software allows real-time analyses and documentation of magnetic properties.



Visualization of magnetic stray fields



Visualization of domains  
(e.g. electrical steel plates)

## Function Principle

- Integrated homogeneous, linear polarized light illumination (LED)
- Change of the polarization status of light in the magneto-optical sensor depending on the applied local magnetic field
- Analysis of local intensity changes via a secondary polarizer
- Recording of the magneto-optical image by using a CCD-digital camera

## Technical Features

- Direct visualization of magnetic fields
- Analysis of: polarity, homogeneity, distribution of the magnetic material and magnetization properties
- Field range: up to  $\pm 125$  mT
- Sensor size: up to 60 x 45 mm
- Optical resolution: up to 25  $\mu\text{m}$



**matesy**  
Magnetic Technologies & Systems

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