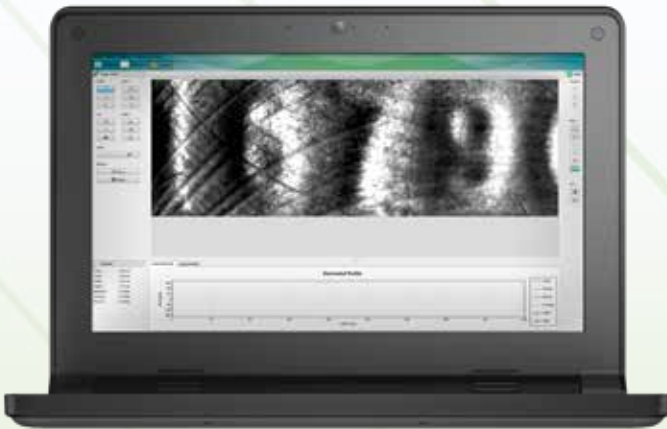




**magesye**  
by matesy

## Mobile magneto-optical visualization of magnetic fields

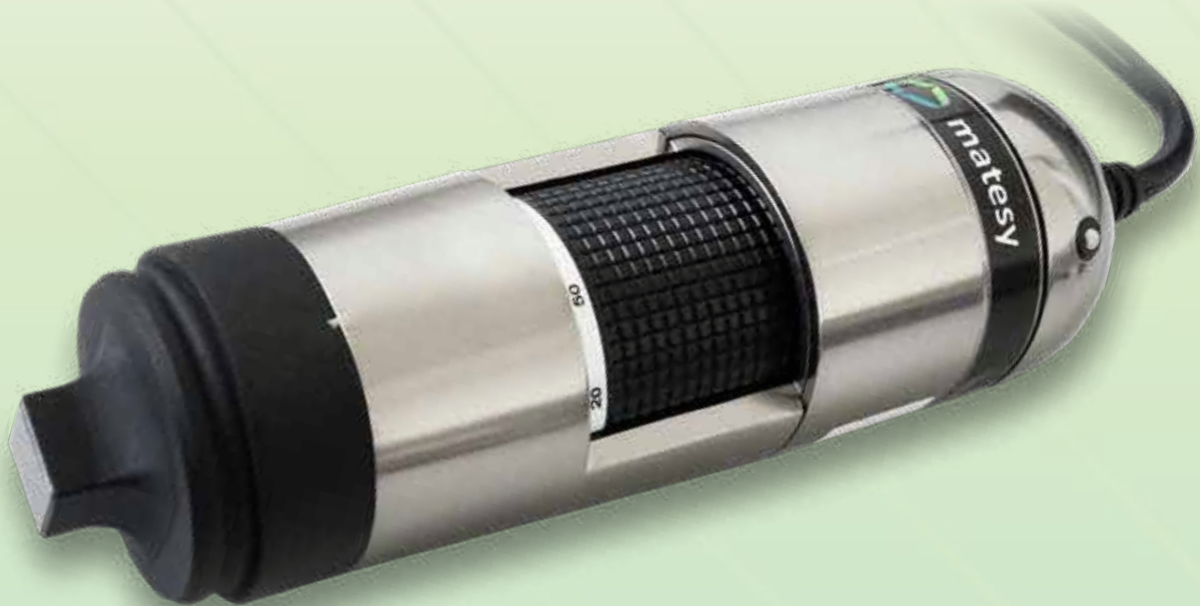




Visualization of serial numbers



Visualization of domains in electrical steel plates

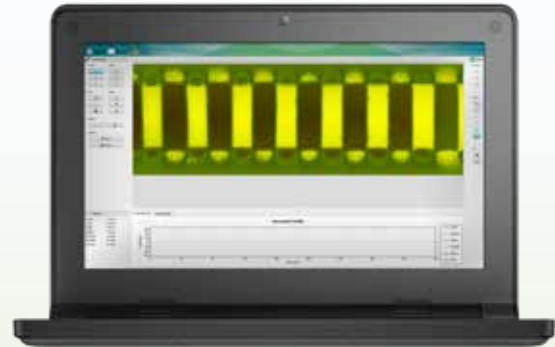


The **mageye** is a digital microscope camera system with an integrated magneto-optical sensor tip for the fast and reliable visualization of magnetic stray field structures. The portable system, including a comprehensive user software allows realtime stray field analyses and quality tests of magnetic materials. It is possible to visualize magnetic stray fields of magnetic stripe cards, magnetic tapes, magnetic encoders, obliterated serial numbers, magnetic ink as well as di- and multipole magnets.

## Visualization

The **mageye** is able to visualize magnetic stray fields and flux densities in a high optical resolution. The core of the system is an application adapted magneto-optical sensor in combination with a high-resolution USB-camera.

The included user software allows a decent post processing of the captured images. Our mobile device especially applies for small and narrow examination environments.



Visualization of a linear encoder



Visualization of magnetic security features on banknotes with optional yoke



Visualization of banknote security features

## Function principle

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

## Technical features

- High resolution visualization of magnetic fields
- Analysis of: distribution of the magnetic material, domains of silicon steels, and magnetization properties
- Measurement area: 7 x 7 mm
- Optical resolution: approx. 10  $\mu\text{m}$





**matesy**  
Magnetic Technologies & Systems

## Contact & Information

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