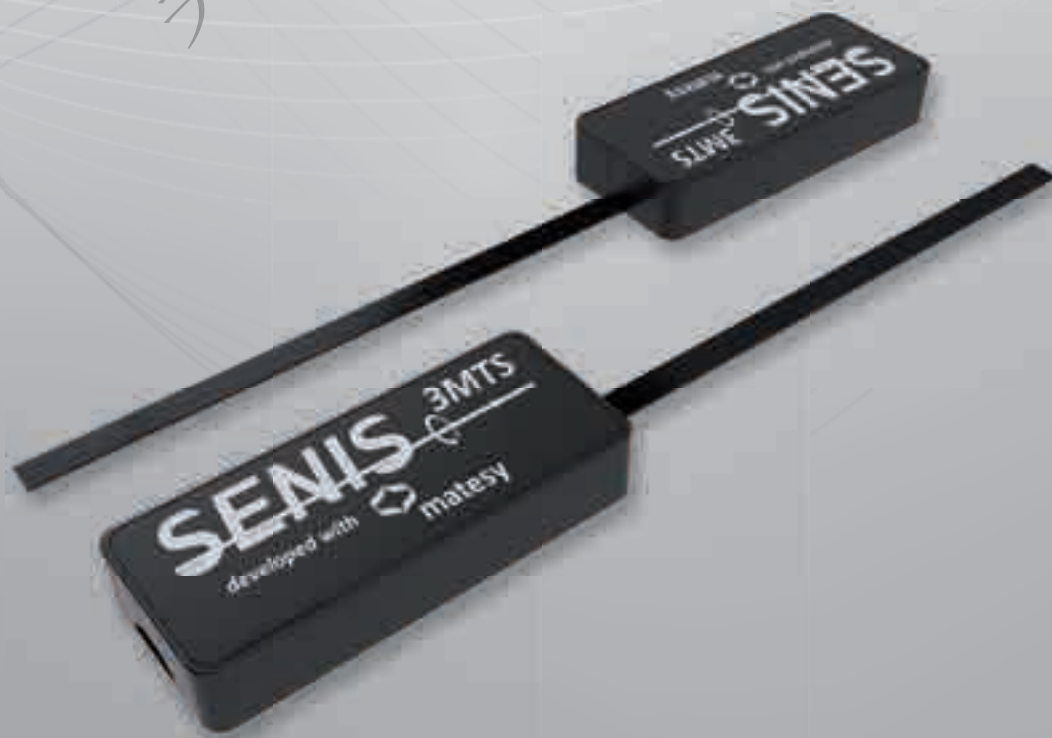


# 3MTS

3-axis USB handheld teslameter

昊量光电



Your partner for magnetism and lead testing

# 3MTS - 3-axis USB handheld teslameter

## Control of permanent magnets

3MTS is a handy 3-axis teslameter, which was developed in cooperation between Matesy GmbH and the Swiss SENIS AG.



## Highlights

- Control permanent magnets
- Measurement of the surrounding magnetic field
- Process control of magnet systems and
- Applications in production lines & laboratories
- Magnetic field mapping

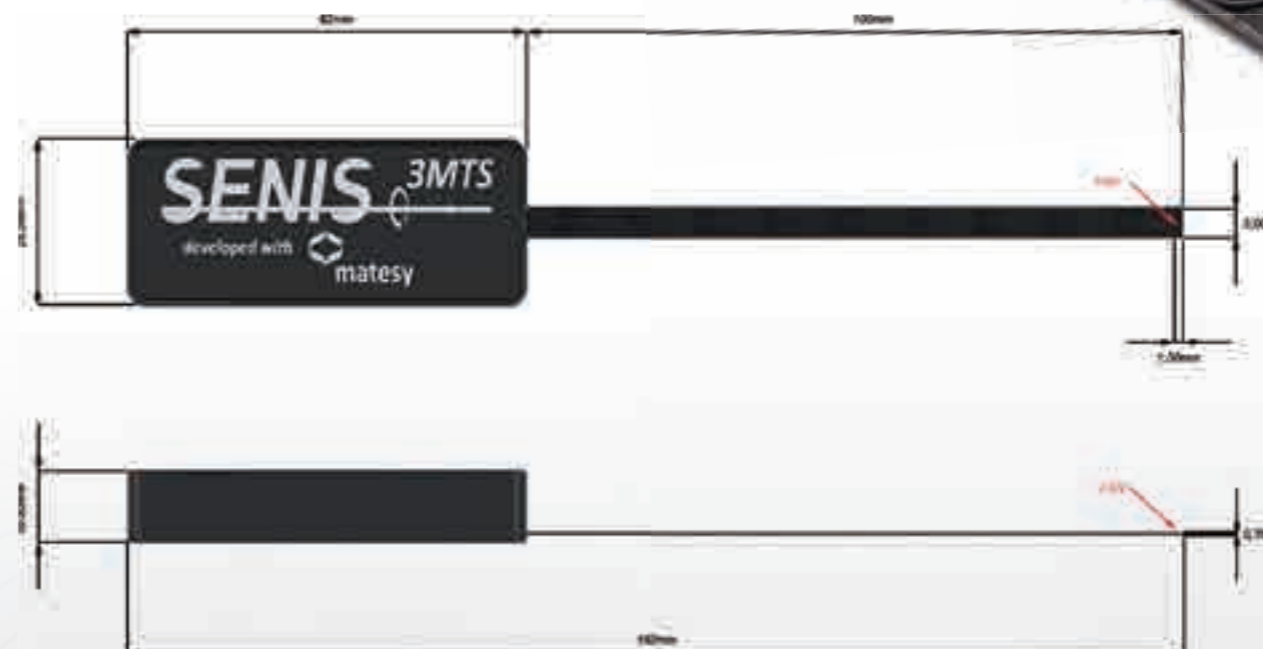


Picture: 3MTS Software

## Functionality

The 3MTS incorporates a fully integrated 3-axis Hall probe, which is integrated in a specially designed carbon-fiber holder to provide the mechanical protection of the probe. The probe holder is 4mm wide and only 1mm thick to allow a measurement of the magnetic field in narrow air gaps. The Hall probe is connected to a compact and light electronic module, providing the measured signal conditioning, the 12bit AD conversion, the device calibration and an USB connection to the host computer. The Hall probe on-chip temperature sensor allows a temperature compensated output signal for each three magnetic field components (Bx, By and Bz). The easy-to-use teslameter software running on a MS Windows computer, tablet or smartphone is used for the data acquisition, teslameter power supply and control and for measured data visualization. The measured data are visualized in numerical and graphical colored displays, allowing an easy readability and intuitive setup of alarm triggers, hold function and measured data storage. The total value of the magnetic field, as well as all three components of the magnetic field and the probe temperature are displayed. In addition, the min/max values of the magnetic field components can be presented.

## Dimensions



## Specifications

- Teslameter / gaussmeter with 3-axis Hall probe
- Light and robust plastic housing
- Extremely robust and flexible probe carbon fiber holder
- EEPROM for storing the calibration data
- User-friendly software for PCs, tablets and smartphones
- Alarm, hold and zero functionality
- Numerical and graphic visualization of the magnetic field components Bx, By and Bz as well as BTotal, Bmax, Bmin and probe temperature

## Application areas

- Control and monitoring of permanent magnets and magnet systems
- Measurement of the surrounding magnetic field
- Development of magnet systems and process control
- Applications in production lines and laboratories
- Magnetic field mapping

## Technical information

- Thickness of the Hall probe (with bracket): 1mm
- Hall probe width: 4mm
- Uncalibrated measuring range: 20T
- Calibrated measuring range: 0.1T, 0.5T, 2T
- Magnetic resolution:  $\pm 20\mu\text{T}$
- Frequency bandwidth: DC-500Hz
- AD conversion: 12Bit
- Interface: USB2 & USB3 compatible
- Accuracy:  $\pm 1\%$

