

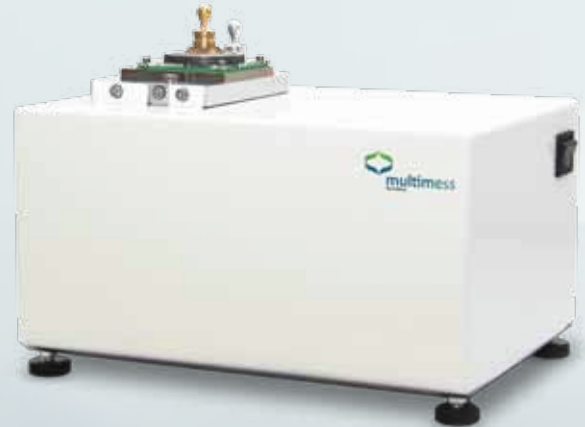


One of Matesy's core competencies is the management of development projects. In cooperation with you, we create a concrete solution, manufacture a system according to your specific needs and support the implementation process.

## multimes system

The multimes system has been developed for the **Robert Bosch GmbH**. It is a flexible measurement application for the during-series-investigation of various multi-pole magnets. An integrated rotation axis allows the surface measurement of the magnet arrangement within a predefined radius during an entire rotation.

The arrangement of the measurement sensors will be customized and implemented in an independent and reproducible measurement system. With an application software the error angle of pole shifts as well as the field values of components can be determined. Measurement results are illustrated in real-time and subsequently documented in the processing unit.



### Technical Features

- Angular resolution: 0.5°
- Flux density in def. radius: 0.5 mT
- Time per measurement: < 5 min
- Interface: USB
- Power supply: 100 - 240 V~ 0,9 A

## Helmholtz coil systems

In cooperation with **universities and research institutes**, we develop three-dimensional Helmholtz Coils periodically. Two coils with large radius (edge length for quadratic coils) are set up in parallel on equal axes. The overlay of both fields creates an area with a homogeneous magnetic field, which is accessible for experiments.

The geometry of a Helmholtz Coil is either cylindrical or quadratic. Due to its three-dimensional arrangement, it is easy to generate magnetic fields in any direction. The magnetic field of a Helmholtz Coil depends linearly on the coil current and is (in the inner volume) nearly location-independent. Helmholtz Coils are ideal for the calibration of HALL-, MR-, Fluxgate- and SQUID-magnetometers.



### Technische Daten

- Edge length / diameter: 10 cm ... 10 m
- Field range:  $\leq 1$  mT
- Control: PC / manual
- Angle error:  $\leq 0,1^\circ$

