



Sensitec.

Magnetoresistive Sensors »made in Germany«.

» We stand for
curiosity and
creativity ...

... as an uncomplicated and
willing partner we impress our
customers with new product ideas
and solutions .

» We keep our eye on
the target ...«

... reliability and cooperative
partnership come alive .

» We excite our
customers ...

... with a unique technology and
an offbeat way to find the best
solution.

Performance.
Sustained.

Together we are Strong.

We are a global leader for magnetoresistive sensor technology and the development and production of magnetic micro systems with two locations in Lahnau and Mainz. We offer sensor solutions for the measurement of length, angle, position, current and magnetic field – simply robust, precise and dynamic.

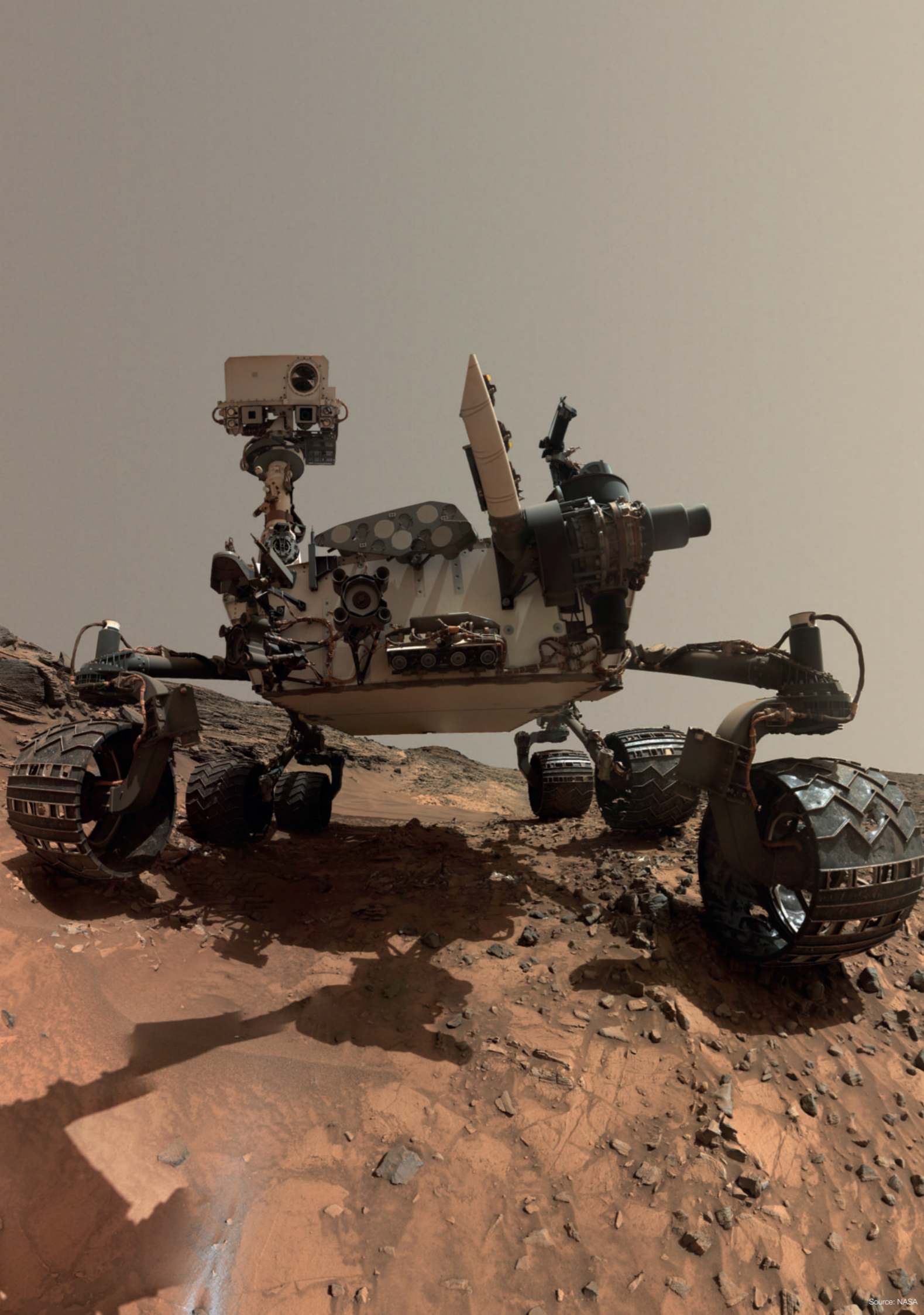
Since September 2021, we have been part of the internationally active sensor manufacturer Sinomags Electronic Technology Co., Ltd. based in Ningbo, China. Sensitec GmbH was founded more than 15 years ago in Lahnau, near to Wetzlar, with the objective to produce sensors based on the magnetoresistive effect for industrial and automotive series applications. Combining the know-how and decades of experience and innovative strength of Sinomags and Sensitec offers a unique market opportunity for both companies.

Our service portfolio comprises amongst other things:

- Measurement scales (magnetized linear scales and pole rings)
- Chip design and chip production
- Integrated signal processing circuits
- Components and system solutions in standard and customized design

The portfolios of Sinomags and Sensitec complement each other perfectly," explains Dr. Jianguo Wang, founder and CEO of Sinomags Technology Co. Ltd. „Sinomags is a specialist in TMR-based current sensors and sensors for magnetic code and image recognition. Sensitec has its strengths in magnetic measurement of displacement, angle and length. For our existing and future customers, the great advantage is that these competencies are now bundled," Wang continues. There will be synergies not only in technology and product portfolio, but also in sales. For the business partners, nothing will change in terms of operational cooperation. The quality of the products and services as well as the close cooperation with business partners will remain the most important requirement.





100 % Market Share on Mars.

Since more than 12 years our sensors are running trouble-free under the most extreme conditions.

When in 2004 the Mars rovers „Spirit“ and „Opportunity“ landed on the red planet, the life expectancy of the robots was estimated to be about 90 days. In the case of „Opportunity“ the expected three months have been extended to more than 12 years to date. Meanwhile, the moving robot managed to drive more than 40 kilometers – this is the furthest distance ever driven on a foreign planet.

The fact that „Opportunity“ is able to do this outstanding job for such a long time also depends on our sensors. They are used to detect the angle and positions of all moving parts and to provide their control signals, such as for example for the angle position of the wheels or the position of the robotic arm. Due to their robustness the sensors can withstand extreme environmental conditions on Mars such as temperature fluctuations ranging from +27 to -133 °C as well as different surface structures and strong cosmic radiation due to an extremely thin atmosphere.

With the sensational landing in 2012 another rover touched the Martian ground with ultra-modern sensor technology on board. On behalf of NASA, „Curiosity“ supports the elder brother „Opportunity“ in searching for extraterrestrial life.

„The successful Mars projects are a perfect example for the outstanding quality of our xMR sensors. These advantages are not only interesting for space applications but also for applications on earth“, says Dr. Rolf Slatter, CEO Sensitec GmbH.

Our Strengths. Your Benefit.

We develop and produce magnetoresistive sensors and systems for a variety of branches. With a comprehensive product range and the possibility to put customer-specific requirements into unique sensor solutions we are your competent partner for magnetic sensor technology.

All sensors and systems are developed by experts. Technological principles and new possibilities are developed systematically in EU- and state-funded R & D projects. In order to bring these new ideas into your application as fast as possible we always keep our focus on industrial requirements.

As one of the few manufacturers of xMR sensors we possess competent knowledge in all three industrially used technologies: Anisotropic Magnetoresistive (AMR), Giant Magnetoresistive (GMR) and Tunnel Magnetoresistive (TMR).

Besides research, development and production of sensors the support of our customers is an important matter for us. With a longstanding experience in many application fields we give advice and support to select the optimum sensor solution.

- Wide-ranging sensor portfolio.
- Permanent further development of xMR technology.
- Application experience in various fields.
- Customized sensor and system development.

**Fast start.
Quick implementation.**

**Optimum system
adaptation.**

**Individual solutions
tailored to
the application.**

Performance.
Sustained.



Research & Funded Projects.

The participation in national and international research projects has a long tradition and can be traced back to Sensitec's origin as a private research institute. Especially due to the co-operation with experts from research institutes, universities and industrial partners the potential of the relatively new xMR sensor technology could rapidly be developed for various application fields. From the application-specific demands new product ideas and findings are generated. But also the challenges and limits of the technology can be better understood. Finally the interdisciplinary project co-operation has a considerable contribution to the competence development of all experts involved.

During the last couple of years for example we took part in a project to develop a bio-sensor for the magnetic detection of germs by means of a specific sensor design. For the automotive sector we developed together with an international consortium a compact and intelligent drive concept for electro mobility, especially for the use in commercial vehicles. Currently we undertake intensive research and development in projects with industrial and mechanical engineering concentrating on Industry 4.0 in order to create the basis for new product solutions.



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Since 2015 Sensitec Mainz uses 100 per cent green power.

Sustainability.

Social Responsibility.

Our commercial behavior is based on a commitment to social principles towards our employees, customers, suppliers or any other partners. One of our most important objectives is the investment of the provided capital to offer interesting and safe jobs to our employees. The education of young people is an important matter for us because we wish to enable them a good start into their professional life. Health protection, further training, safety at work and the promotion of diversity in our companies are major issues to support our sustainability.

Ecological Responsibility.

The protection of the environment is an important part of our overall business policy. We want to reduce environmental impact in any form to a minimum and we want to fulfil the legal requirements as a minimum criterion. The risk potential of our production plant is checked at regular intervals, the safety installations and organizational measures are always kept up to date. At our location in Mainz Sensitec has implemented an environmental management system according to ISO14001. Furthermore the energy management system according to ISO50001 was introduced across locations.



Application Fields.

Magnetic sensor technology can be applied in a vast range of different applications. In various industrial areas magnetic sensors help to fulfil the complex and demanding requirements.

Used as ABS or steering angle sensors in the automotive sector our sensors contribute to better road safety.

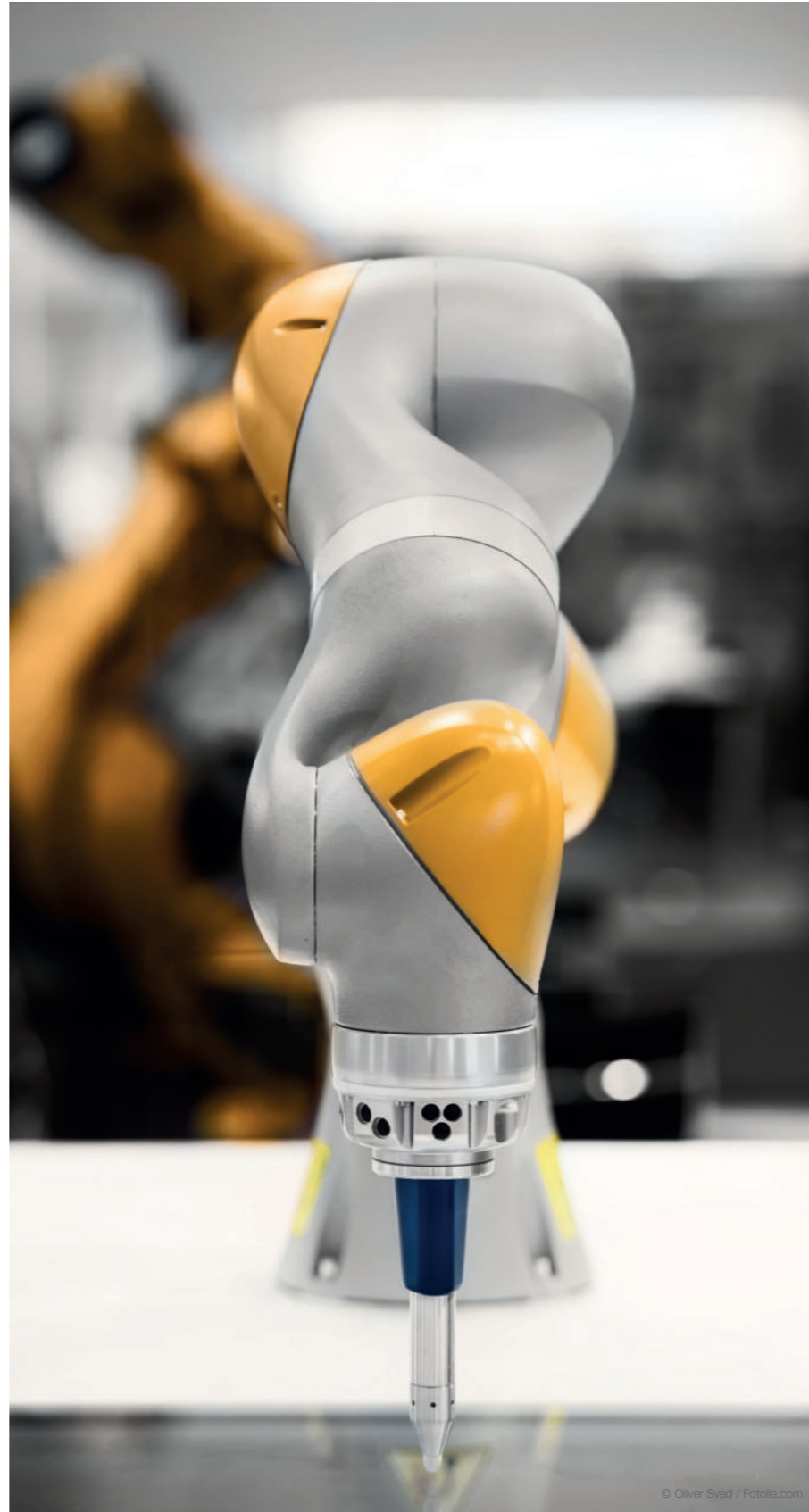
The automation industry optimizes and refines control processes of machinery, equipment and shop floors. Here the efficient and dynamic sensors help to achieve the best possible performance.

While in general aviation applications compact and intelligent sensor systems help to save fuel, magnetic sensors used in space applications penetrate into unimagined worlds and demonstrate unparalleled robustness and reliability.

Medical technology is another application area which benefits from the possibilities of compact, reliable and highly-precise magnetoresistive sensors. Be it in medical devices or in implants such as cardiac pacemakers, our sensors fulfil the highest medical standards.



Automotive.



Automation.



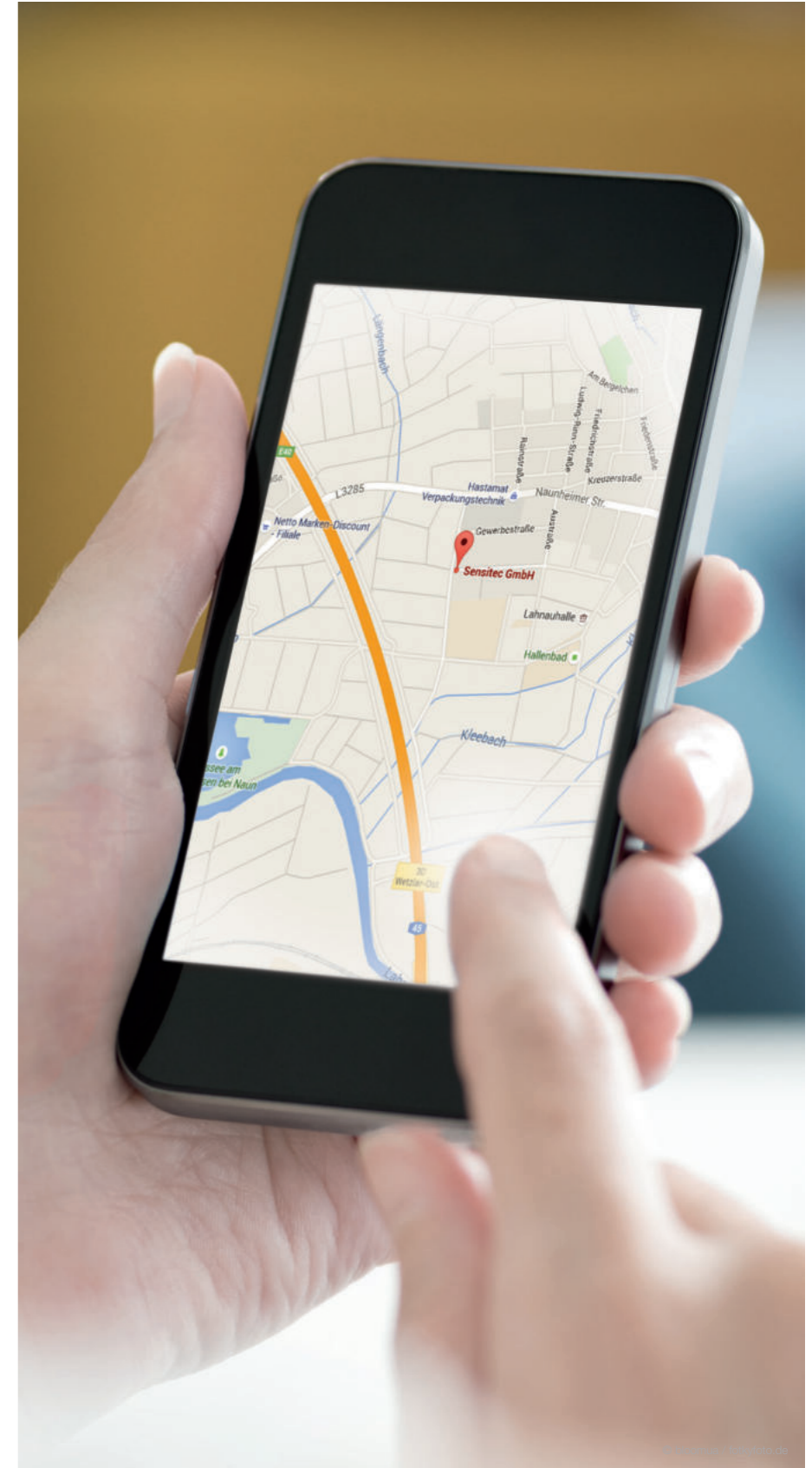
Machine Tools.








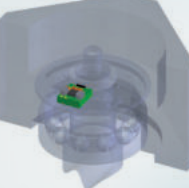
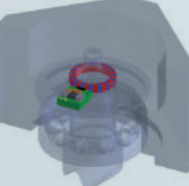
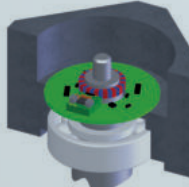
Aerospace.



Bio- & Medical Technology.



Others.

	  Winkel- & Längenmessung.	 Strommessung.	 Magnetfeldmessung.
Komponente Einzelteile, die für die Integration in ein Modul oder System vorgesehen sind. 	AA700 AMR FreePitch Sensor AL700 AMR FixPitch Sensor TA900 TMR FreePitch Sensor TL900 TMR FixPitch Sensor MLx / MWx Maßstäbe / Polringe	CFS1000 Programmierbarer AMR Stromsensor im SMD-Gehäuse, flexibel für verschiedene Strombereiche	AFF700 AMR Magnetfeldsensor, geeignet für die Messung von schwachen Feldern, wie z. B. dem Erdmagnetfeld GF705/GF708 GMR Magnetfeldsensor, abgestimmte Kennlinie für Schaltanwendungen TF952 TMR Magnetfeldsensor
Modul Ein Modul setzt sich aus mehreren Komponenten zusammen, wie zum Beispiel Sensor und Auswerteelektronik. 	GLM700 GMR Zahnradsensor Modul EBx7800 „Sensor Modul mit verschiedenen Interfaces“ - für Zahnstrukturen (passiv) EBx7900 „Sensor Modul mit verschiedenen Interfaces“ - für Polringe und Maßstäbe (aktiv)		
Kit Bausatz aus Modulen und Komponenten für die Integration zu einem System sowie Evaluation-Kits. 	GLAM700 Demoboard für GLM Sensor Familie EBK Demoboard für EBx Sensor Familie	CFK1000 Demoboard für CFS1000 Stromsensor	
System Funktionsfähiger Verbund aus Komponenten und / oder Modulen. Der Montage- / Konstruktionsaufwand ist minimal. 	Sinomags Stromsensorportfolio		

Kundenspezifische Entwicklung.

Individuelle Chipentwicklung.

Entwicklung eines besonderen Chip-Designs nach Ihren Anforderungen.

Spezifische Systemlösung.

Optimal integrierte Sytemlösungen für Ihre Anwendungen.

Prozess- und Systemfertigung.

Ihr Dienstleistungspartner für Chip-On-Board und Systemfertigung.

xMR-Sensortechnologie.

Vorteile der xMR-Sensortechnologie.

Die robuste und verschleißfreie Technologie bietet eine große Dynamik und hohe Zuverlässigkeit.

Besondere Konstruktionsmerkmale.

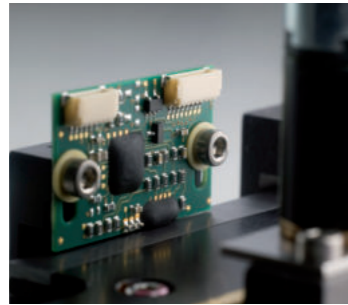
Durch ein geeignetes Sensorlayout lassen sich Funktionen und Kennlinien individuell anpassen.

Optimierte Maßverkörperungen.

Herstellung von magnetischen Polringen und Linearmaßstäben mit unterschiedlichen Codierungen.

Service Portfolio.

Our products stand for precise measurement by means of robust sensor technology. Magnetoresistive sensor chips as well as the corresponding micro systems form the basis for measuring and controlling magnetic, electrical and mechanical parameters.



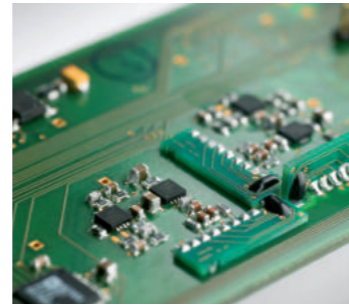
Angle & Length Measurement.

Incremental or absolute angle and length measurement for position detection.



Current Measurement.

Compact sensor types for different current ranges.



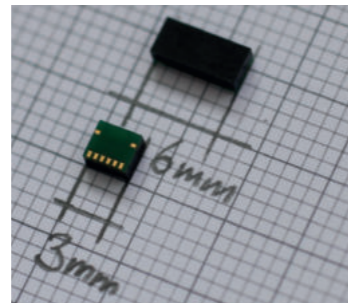
Magnetic Field Measurement.

For the precise measurement of small fields or as reference sensors.



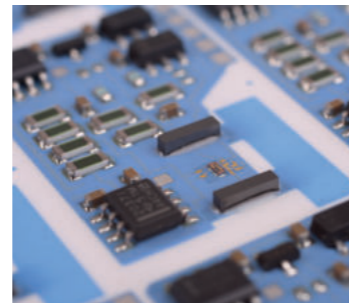
Magnetic Solutions.

Efficient sensors and measurement data evaluation for test stands and condition monitoring.



Customer-specific Development.

You and your requirements take the centre stage. We develop the ideal sensor solution for you.



xMR Sensor Technology.

We have the know-how about all three magnetoresistive technologies currently used in industrial applications. AMR-, GMR- & TMR.

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