

Shaping the Future with **Sensors**

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Sensors Future

As a leading manufacturer of precision sensors, we are shaping the future with sensors.

Our systems are used where accuracy and performance are crucial to success – in modern machine building and in advanced automation as well as in satellite technology and in the production of next-generation batteries and semiconductors. As an international company group, we have been making a significant contribution to the world of tomorrow – for more than 55 years.

With the following pages we provide you an insight into our company – what drives us, what we stand for and what we take responsibility for.

Company management at Micro-Epsilon

Dr. Thomas Wisspeintner

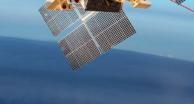
Dipl.-BW (FH) Andreas Rettenberger

Prof. Dr. Martin Sellen

Dr. Alexander Wisspeintner







Hundreds of satellites orbit the earth at a low altitude and provide fast Internet connections around the world. What sounds futuristic is already a reality for us.

Our tilting mirror systems allow for reliable laser communication. This happens at an altitude of 500 km, at speeds of over 25,000 km/h and distances of up to 5000 km.

These sensor actuator systems are another milestone in our company history. With pioneering technologies such as this, we have strengthened our position as leader in sensor technology. We turn high-performance solutions into series products.

Core Values

The people and the culture of our home region are part of our identity. We are an international company group yet we remain deeply rooted in our origins. At the same time, we are open for change and are ready to explore new paths and drive innovation forward.

With our technological focus we pursue a long-term strategy. We act sustainably and stand for long-term cooperation, motivation and commitment. In doing so, we take responsibility for the people, our region and the society.



Our Mission

As an international company group, we increase quality and productivity, innovation and sustainability.

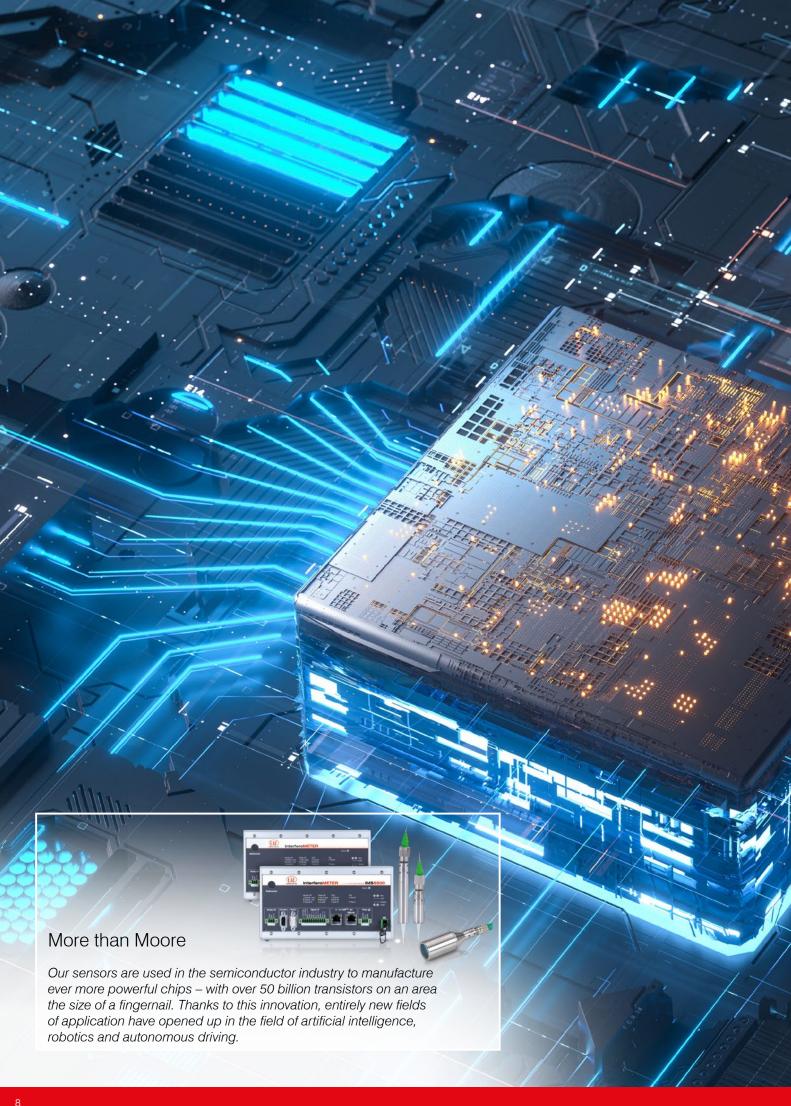
We live an appreciative and powerful company culture and generate value for our customers and society.

Micro-Epsilon offers future-oriented jobs and fosters knowledge and skills of our employees.

Through our engagement in society, we take over responsibility and provide prospects to people.

Shaping the future with sensors. For more than 55 years – and this is just the beginning.













for displacement, distance, position, color and temperature



Micromechatronics Sensors and actuator systems for aerospace & semiconductor applications



Extensive sensor portfolio for precise inline measurements



Top performance: Precision, resolution & reliability



High-tech measurement Made in Germany



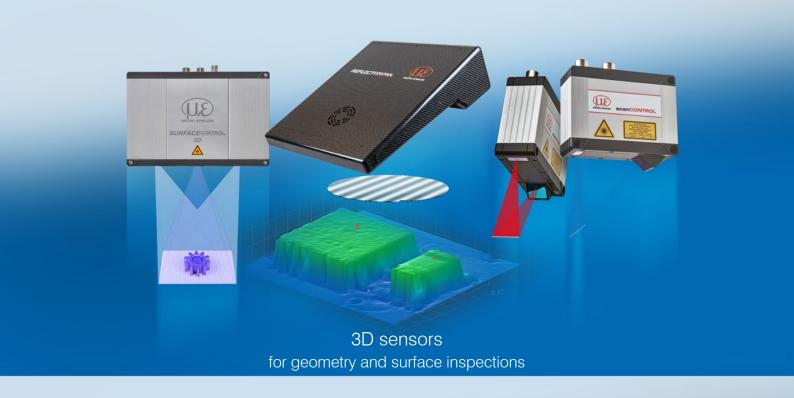
Worldwide application consulting



Solution competence from catalog to OEM series



More than 42,000 customers worldwide





Performance Spectrum

Our sensor technology offers many opportunities for improving the world of tomorrow. In four business areas, we offer a high-performance range of precise sensors and measuring systems – from a catalog product to customer-specific OEM designs in quantities.

The width and depth of our technology portfolio allows for an enormous variety of applications in many industries. Our products stand out thanks to their high accuracy, integrability and series production capability. Always with the goal to achieve more precision for the world of tomorrow.



Industry Expertise

Our sensor products are used in numerous industries. They solve measurement tasks with maximum precision and reliability. This is how we increase quality and generate added value for our customers.

We consistently increase our knowledge to optimize our customers' machines, systems and processes. The accumulation of knowledge and experience allows us to speak the language of our customers. In this way, we develop targeted solutions for future-oriented applications.



Semiconductors

Automotive

Automation



Competence centers for development & production © Development P Production V Application & sales

Micro-Epsilon Optronic, Dresden / DE Optical measurement technology (E) (P) (V)

Micro-Hybrid, Hermsdorf / DE Microsensors / Electronics (E) (P) (V)

Micro-Epsilon Ceramics, Ilmenau / DE Electronics $\stackrel{\bullet}{\textbf{E}}$ $\stackrel{\bullet}{\textbf{P}}$ $\stackrel{\bullet}{\textbf{V}}$

Aktormed, Barbing / DE Medical technology (E) (P) (V)

Micro-Epsilon Atensor GmbH, Steyr / AT System technology (E) (P) (V)

Micro-Epsilon Inspection, Bratislava / SK System technology $\textcircled{E} \ \textcircled{P} \ \textcircled{V}$

Micro-Epsilon CZ, Bechyně / CZ OEM series (E) (P) (V)

Silicann, Rostock / DE Color sensors / Time-of-flight (E) (P)

INB Vision, Magdeburg / DE 3D sensors $\stackrel{\bullet}{\mathbb{E}}$ $\stackrel{\bullet}{\mathbb{P}}$ $\stackrel{\bullet}{\mathbb{V}}$

Cartesy, Mühldorf / DE Automotive testing technology (E) (P) (V)

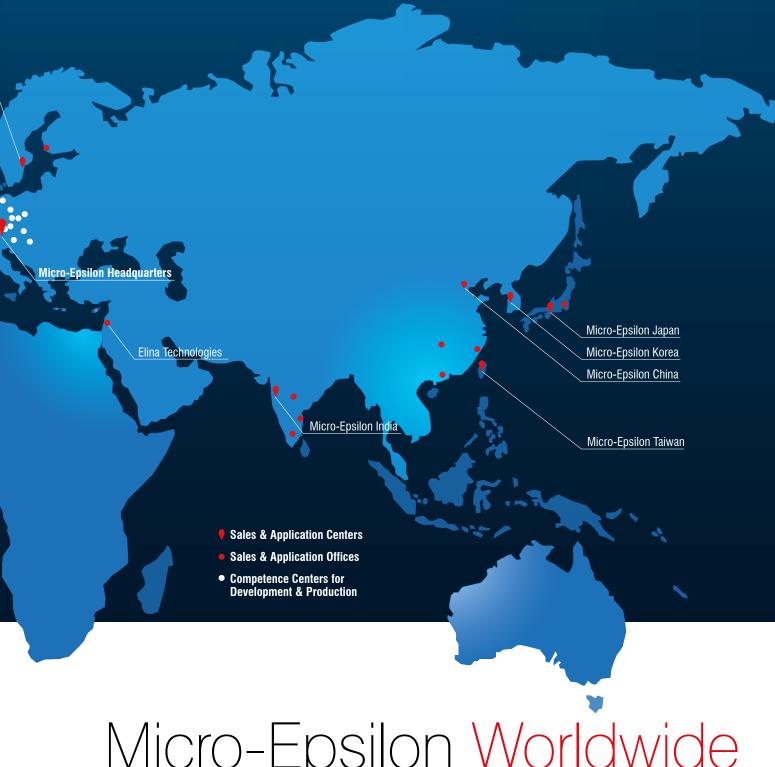
Optocraft, Erlangen / DE Measurement technology for optics & laser testing (E) (P) (V)

Visiocraft, Erlangen / DE Medical technology $\stackrel{\frown}{\mathbf{E}}$ $\stackrel{\frown}{\mathbf{P}}$ $\stackrel{\blacktriangledown}{\mathbf{V}}$

Micro-Epsilon Eltrotec, Göppingen / DE Industrial sensors (E) (P) (V)

GRINTECH, Jena / DE Optical measurement technology (E) (P)

MetisMotion GmbH, Munich / DE Actuator systems **E P V**



Micro-Epsilon Worldwide

Developed in Germany, applied in leading industries worldwide – this is the success story of the Micro-Epsilon Group. The 27 competence centers have a focus on R&D and production, automation, application and support. In this strong network we provide performant sensor solutions for our international customers.

Thanks to matrix certification, our high quality standards are firmly anchored at all locations and across all processes.

Series Optimization

We transform high tech into industrial series products. We do this by combining the key competencies in the Micro-Epsilon Group. The accumulation of sophisticated technologies and automated production facilities allow us to create a high-performance portfolio which is also suited for OEM applications with high volumes. We respond quickly to customer requests and offer solutions within a short time – sensors with more precision.













Technology competencies for industrial series production

- LTCC
- Assembly (AOI, in-circuit)
- Passivation & coating
- 5-axis precision manufacturing
- Coil winding
- Sensor installation

- Series production
- Hermeticity
- Vacuum brazing
- Laser welding
- Active soldering
- Vacuum casting
- Simulation

- Adjustment
- Calibration
- Testing
- Acceptance
- Burn-in tests
- Qualification
- Packaging

- Cleaning
- Machine building
- Automation
- Software development

Creating Success

Micro-Epsilon stands for sustainable growth and long-term success. In order to achieve these goals, we have defined various success factors: continuous knowledge cumulation, our culture of innovation and the synergies within our company group. The long-term, value-based collaboration with our business partners, the strong market and customer orientation and the focus on series applications are additional reasons why more and more customers around the world are choosing Micro-Epsilon.





More than 1,600 employees worldwide



11% apprentices and student trainees



Over 400 active and pending patents



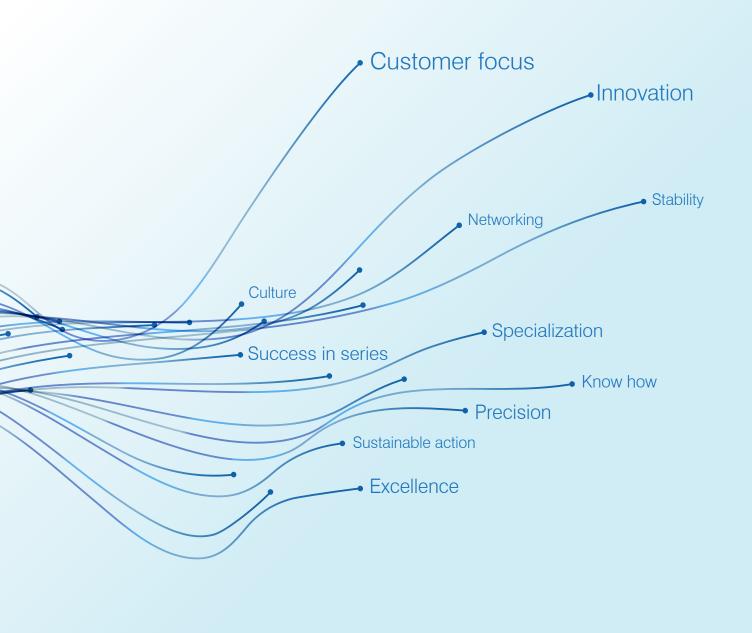
15% R&D quota enables high innovative power

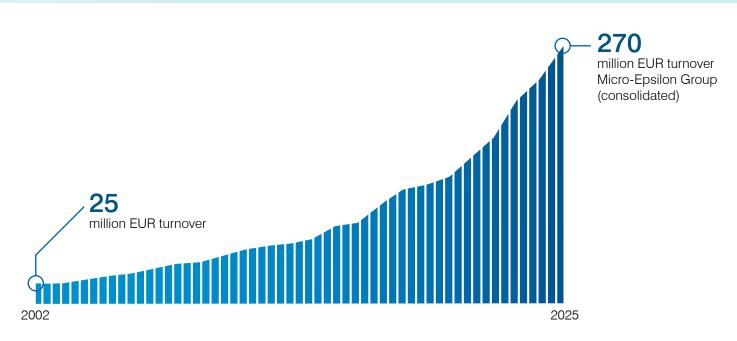


Over 12,000 engineer years in development and application



15% turnover growth per year over 30 years

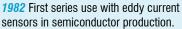






1976 Dipl.-Ing. Karl Wisspeintner met founder Ing. Franz Frischen and joined the company. Karl Wisspeintner led Micro-Epsilon as Managing Director until 2012 and the company group until 2018.







Today: Highly precise sensors monitor semiconductor production with nanometer accuracy.



Today: Series production is distributed across several sites within the Group. Manufacturing capacity has grown to well over 1 million sensors per year.

2006 The first reflectCONTROL inspection system for paint defect inspection was unveiled.



Today: reflectCONTROL systems are used by leading automotive manufacturers to detect surface defects fully automatically.

2008 Sensors by Micro-Epsilon are used in the LAMOST space telescope for mirror alignment.

Today: The world's largest mirror telescope, ELT, uses sensors for fine positioning of the 798 mirror segments. The telescope will provide unprecedented insights into the universe.

Origin Destination

Founded in 1968, Micro-Epsilon is a synonym for high-performance sensor technology. In more than 55 years we have turned into a globally active company group, focussed on more precision.

Through innovation and specialization, we have been able to set milestones again and again over the years. With innovative technologies, measurement methods and industry solutions, we have achieved continous growth that provides perspective and stability. We were present in future-oriented industries right from the beginning and were able to set standards with our sensor products. This is how we shape the world of tomorrow.

Fostering Talent

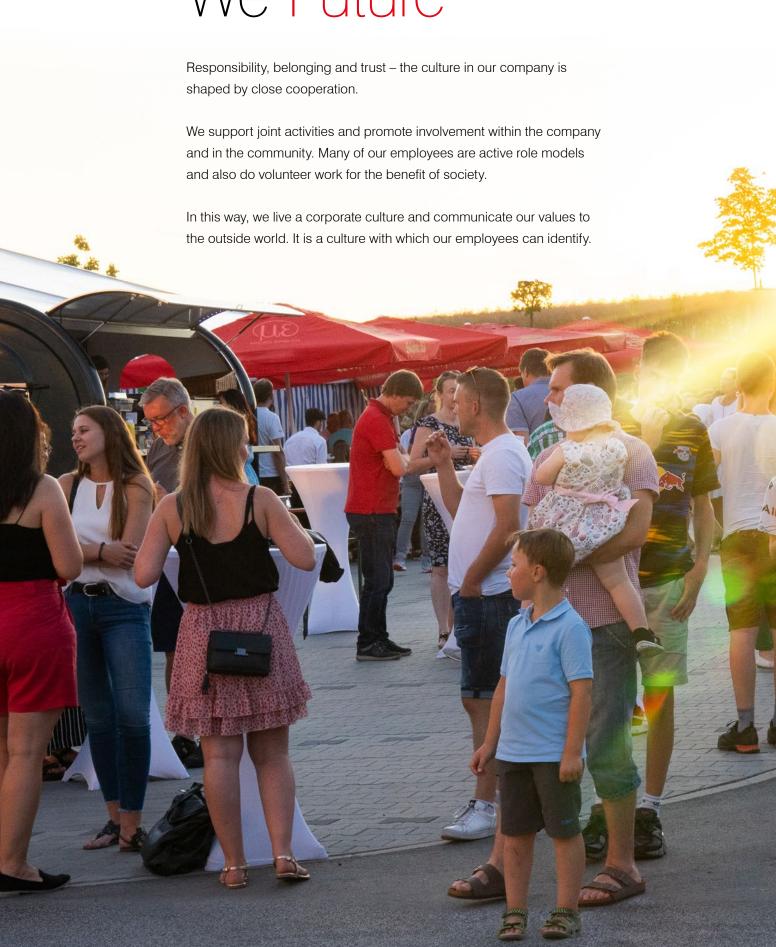
We offer prospects, both inside and outside the company. We are engaged in social and cultural projects. Additionally we support social communities and childcare facilities. Our commitments also include music and art schools as well as regional sports clubs and events.

A particular focus is on promoting young talent. We want to get young people excited about technology and we are involved in different promotion projects for kids and young people. Furthermore, we foster young talent through various training programs, scholarships and study opportunities.





We Future





Our sensors enable technological innovation, save precious resources and improve quality and performance.

This is how we make a decisive contribution to society.

We are shaping the future with sensors – for more than 55 years.

