



Solutions for medical and industrial video endoscopy

First Sensor is your professional partner for the development and production of flexible video endoscopes with distal image sensors. From miniaturized, high-resolution CMOS cameras and complementary sensor technology through to signal transmission, assembly and functional testing of complete flexible endoscope shafts – always perfectly tailored to your requirements.

Sensor technology and electronics

- Miniaturized, high-resolution CMOS and CCD image sensors
- Various approaches for multi-dimensional measurements in the image
- Additional sensors that can be integrated into the camera head
- Signal transmission; electronics for evaluation and imaging

Development and production services

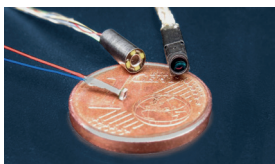
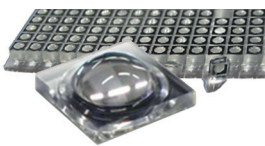
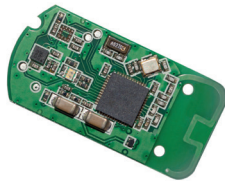
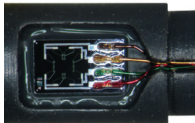
- Mechanical and electronic camera head design
- Assembly/calibration of optics; cable installation
- Design to manufacturing
- Testing technology setup including design
- Series production with calibration/testing
- Sourcing and supplier management
- Quality assurance, taking into account customer-specific requirements (FMEA)

Applications

- Medical endoscopy in accordance with EN ISO 13485
- Industrial endoscopy in accordance with ISO 9001
- Industry-compatible and robust endoscopes
- Single-use or multi-use modules

Whether in medical diagnostics and therapy, in quality checks during production or in the inspection and maintenance of machinery, buildings and pipes, modern single-use or multi-use endoscopes open up new possibilities for users and attractive growth potential for providers. First Sensor combines unique sensor expertise with extensively certified development and production services, Made in Germany. With us as a partner, OEMs secure competitive advantages and can exploit market opportunities quickly, cost-effectively and with little risk.

We are the ideal partner when it comes to defining, procuring and integrating the following customer-specific components:

| Image sensors | Optical components | Evaluation electronics | Additional integrated sensors |
|---|--|--|---|
|  <ul style="list-style-type: none"> – CMOS sensors Formats: 1/36" – 1/4" – CCD sensors Formats: 1/10" – 1/4" |  <ul style="list-style-type: none"> – Spherical optics – Wafer-level/imprint optics – Diffractive optics (DOE) – Lights (fiber-optic, LED, laser) |  <ul style="list-style-type: none"> – Customer-specific IPUs – Evaluation boards – Interfaces: USB, HDMI, CVBS or Wi-Fi |  <ul style="list-style-type: none"> – Pressure sensors – Temperature sensors – UV, VIS, NIR sensors – Radiation sensors – Position sensors – Magnetic sensors – TOF sensors |

First Sensor: Your sensor specialist with expertise in EEMS

Your development projects require a professional and reliable partner that can provide comprehensive Electronic Engineering and Manufacturing Services (EEMS) and develops and manufactures in accordance with industry and company standards at all times.

First Sensor develops innovative sensor systems for discerning customers in the medical, industrial and mobility target markets.

For more information, please contact:
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First Sensor AG

First Sensor is one of the world's leading suppliers in the field of sensor systems and part of TE Connectivity. In the growth market of sensor systems, First Sensor develops and produces customer-specific solutions for the ever-increasing number of applications in the industrial, medical, and mobility target markets. Our goal here is to identify, meet and solve the challenges of the future with our innovative sensor solutions early on.