

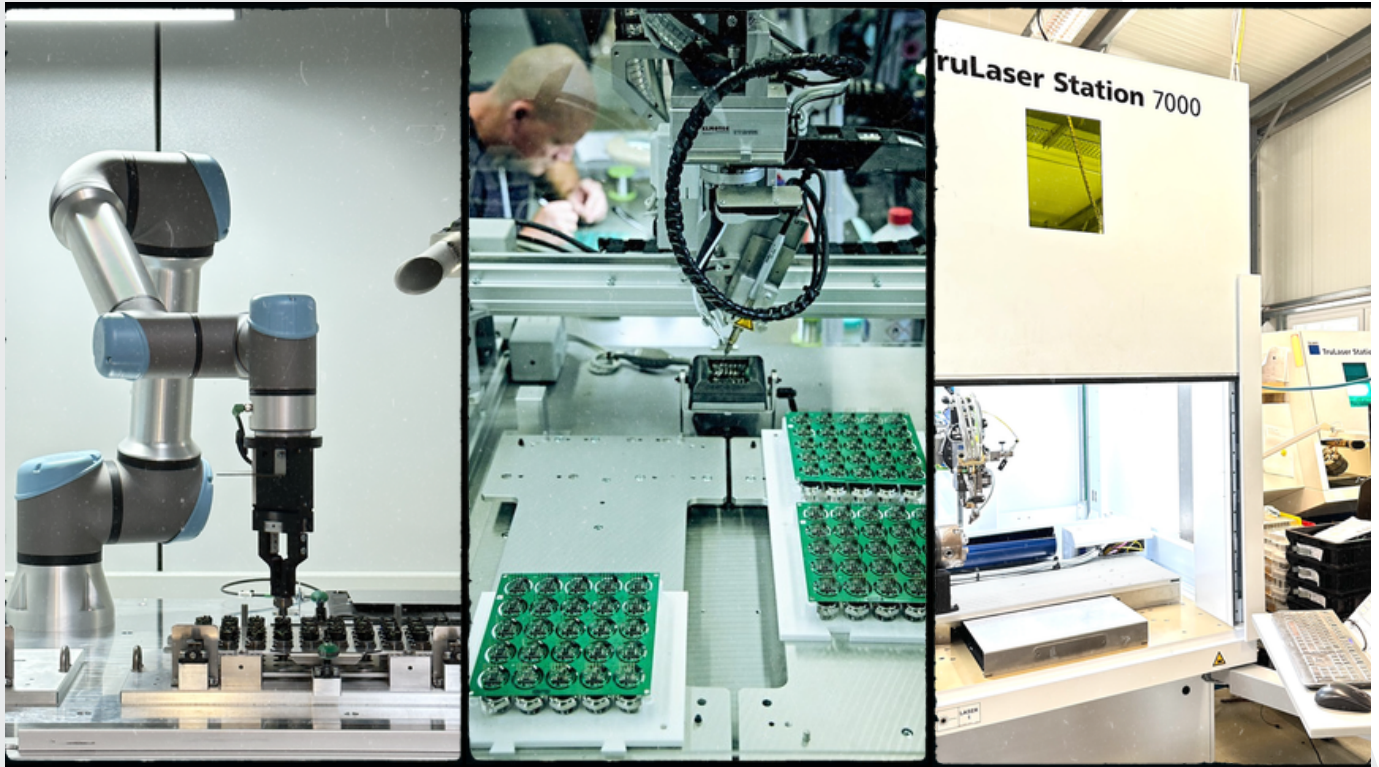
PRIGNITZ

MIKROSYSTEMTECHNIK



WELCOME

TO THE GALAXY OF CUSTOMIZED SOLUTIONS



PRIGNITZ
MIKROSYSTEMTECHNIK





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Welcome to the Galaxy of customized solutions

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Our VISION



PRIGNITZ Mikrosystemtechnik is a modern structured global company which uses its full power of innovation to meet individual customer needs. We develop, manufacture, and sell all over the world analog and digital pressure sensors for relative, absolute, and differential pressure as well as temperature transmitters and probes for level measurement.

Founded in Germany in 2001, now the company uniting more than 100 professionals in microsystems engineering, 15% of employees in R&D and now encompasses a distribution and service network covering 40 countries. More than 65 % of the company's products are shipped outside of Germany. Its team is passionate about delivering innovative, dependable solutions that empower customers to operate safe and sustainable systems.

We are based on our unique scientific developments. Employees of our company have international patents, which make our products highly competitive and unique in the market. The world's largest companies in the fields of off-road mobile equipment, renewable energy, transport, marine and offshore, industrial automation, and medical technology trust our technologies and solutions.

We support the principles of sustainable development and social responsibility. Our strategies are always future-oriented - in terms of resources and the environment, product quality, and technology development.

Due to our high level of added value (from the chip to calibration), we can guarantee a high level of delivery security even in the current turbulent times.

- Our high quality management standards have been certified according to DIN EN ISO 9001.
- Our sensors have certification with highest protection classes ATEX, IECEx, CSA.
- The approval according to the European Directive EC79/2009 officially seals the suitability of our sensors for measuring hydrogen pressure with nominal pressures between vacuum and 600 bar.

Company's HISTORY

In Wittenberge (Brandenburg, Germany), in March 2001, the brothers Dietmar and Hans-Jürgen Arndt founded the small company. It all started with the production of cables, printed circuit boards, and low-pressure sensors - and four employees.

However, already in 2002, the company began to develop and produce serial and individual solutions for measuring technology.

In the same year, the company moved to a larger building in Wittenberge at Margarethenstraße 61, where a "clean room" with high-precision equipment was created.

In 2011, another production facility was opened in Weisen. At this stage, the main production is located there. The nearest plans include the construction of another production building in Weisen.



PRESENT

PRODUCTION OUTPUT PER YEAR

>600.000

Pressure sensors

>25.000

Temperature sensors

>50.000

Cable assembly

TURNOVER [T€]

7.4 million euro in 2020

10.2 million euro in 2021

>12 million euro in 2022

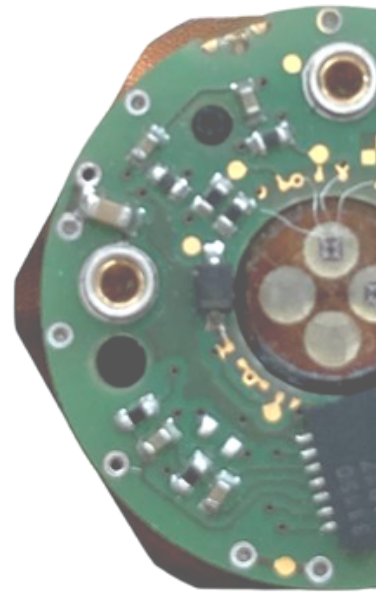
LOCATION

Wittenberge (Brandenburg, Germany).

Clean room for COB (Chip on Board processes).

Weisen (Brandenburg, Germany).

Main Facility today: 980 m² for production and 800 m² (for logistics, design, testing laboratory, customer service and quality control)



CAPABILITIES

- Standard and customized sensors pressure (2 mbar...3000 bar) and temperature (-70°C...200°C)
- Value chain COB (Chip On Board) to system
- Lot size 1 to several 10k

APPLICATION



INDUSTRIAL AUTOMATION
Test stands, CNC equipment,
Presses, HVAC



TRANSPORTATION
Trucks, Buses, Rail, Road
Working Machines



MARINE & OFFSHORE
Engines, Hydraulic, Fluidhandling



INDUSTRIAL PROCESS CONTROL
Chemical, Pharma, Food



ENERGY
Oil, Gas, Wind, Water,
Hydrogen, Power stations



OFF HIGHWAY MOBILE EQUIPMENT
Vehicles and Machines in
Construction, Mining, Farming, Military

R&D

15 % of our staff is employed in Research & Development. Our engineers hold international patents, which makes our products highly competitive and unique in the market. One of the significant results of our R&D is the creation of our own P2P technology, which allows us to create unique heavy-duty sensors for a lot of applications. Over that we use a wide variety of technologies to make the right sensor for the tasks of our customer.

Often we receive an idea or request from our customer to create a customized solution. The project is calculated using appropriate milestones based on R&D roadmaps. In the innovation process, we cooperate not only with universities but also with non-university scientific institutions. Together with the clients, our company brings new developments to the market through joint projects.

We invite you to take a look at our measurement technology galaxy. In each of the chapters Pressure, Temperature, Level you will find basic descriptions of our sensor product families and series, as well as product groups that are offered for specific applications.

TECHNOLOGIES

We optimized 4 Technologies for any requirement

P2P TECHNOLOGY



Two-Chip Technology.

We developed a unique, patented P2P Technology that belongs to the strain gauge technologies. The decisive and innovative difference to the competition is the use of two full bridges, which are interconnected in such a way that undesirable external force influences on the sensor signal (e.g. torques during installation) are largely compensated. A monolithic steel body without any welding is used for this purpose. Only one part made of solid 316L stainless steel comes into contact with the medium. As a result, this technology can also be used for hydrogen applications.

TFT TECHNOLOGY

Thin Film Technology.

With thin-film technology, we use measurement resistors made of polysilicon, which have about three times the raw signal compared to other thin-film technologies (mostly sputtered metals).

The technology, which has been used at Prignitz Mikrosystemtechnik for decades, enjoys a very wide range of applications and reliability.

The TFT technology can be used in all our pressure sensor families S100, S200 and the C100.

PAM TECHNOLOGY

Piezoresistive Advanced MEMS.

Silicon membrane-based pressure sensors are an ideal design for non-aggressive gases and to some extent also for non-aggressive liquids. The technology is mainly used in the lower pressure ranges and can also be manufactured cost-effectively in very high volumes due to the silicon MEMS-based approach. We have decades of experience with this technology under its own label. PAMs are also manufactured in large quantities in the automotive sector. Due to the high internal depth of added value, we can offer individual solutions (pressure ranges, electronics, connections, qualifications).

PMI TECHNOLOGY

Piezoresistive Media Isolated.

If pressure sensors are required for "harsh environments" in pressure ranges below 10bar, especially below 1bar, so-called oil-filled sensor modules have proven their worth. Standard piezoresistive MEMS pressure sensor elements used here, are protected from the measurement medium by an additional thin stainless steel diaphragm. An oil serves as the pressure transfer medium from the steel membrane to the silicon chip.

This type of sensors (at PMST under the brand name PMI) are used very successfully in many fields of application such as oil production, dirty water, chemicals, sea water. Depending on the type of construction and calibration electronics, accuracies and long-term stabilities of less than 0.2% down to 0.04% are possible.



TOP PRODUCTS

PRIGNITZ MIKROSYSTEMTECHNIK PRESSURE SENSORS

SPT Family (STANDARD PRESSURE TRANSMITTERS)



PMP - S100 Series

Extreme rugged pressure transmitters with measuring cell for relative, absolute and sealed reference pressures. Transmitters of this Series are flexible for customized requirement.

Technologies used in production: P2P, TFT, PMI



PMP - S200 Series

OEM piezoresistive, very compact pressure transmitters (without oil reservoir) for high pressure and aggressive media. Based on a new type of two-chip technology (P2P), which enables the highest demands on robustness and performance such as stability, vibration/shock resistance.

Technologies used in production: P2P



PMP-S122-H

Pressure transmitter for Hydrogen use with a special monolithic stainless steel measuring cell. Transmitter can be certificated for Hazard areas.

Technologies used in production: P2P, PAM



PMP-S142

Low pressure transmitter with piezoresistive silicon measuring cell for relative and absolute pressures, and non-aggressive medias.

Technologies used in production: PAM

Pressure transducers for a application with high and very high accuracy requirement .
Oil- filled and stainless steel pressure cells from -1...3000 bar are available for different field of uses.

The CIT allows a zero point correction, a range changing and a measurement filtering with additional service-box and PC-Software.

Can be certificated for Hazard areas and applicable for Hydrogen.

Technologies used in production: TFT, PMI, P2P



PRIGNITZ MIKROSYSTEMTECHNIK TEMPERATURE SENSORS

PMT-S/PMT-C



Robust construction. Wetted parts of stainless steel, protection category IP 67/ IP69K. Electrical connections standard to chart or cable or other. TIP temperature ranges are flexible. The sensors can be certificated for Hazard areas. Temperature sensors of PMT-C family have a more compact design.

PRIGNITZ MIKROSYSTEMTECHNIK LEVEL PROBES

PML- S/ PML-C



Measuring standard levels and filling levels in water plants or in oil. It is very robust, it is covered by a stainless steel casing and will be delivered with a cable with integrated pressure equalization tube. Can be certificated for Hazard areas. PML-C has the advantage to do online configurations.

Please note that this brochure does not provide complete product information. Prignitz MST is constantly offering new sensor developments. For up-to-date product information, please visit:
<https://www.prignitz-mst.de/our-products/>.

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