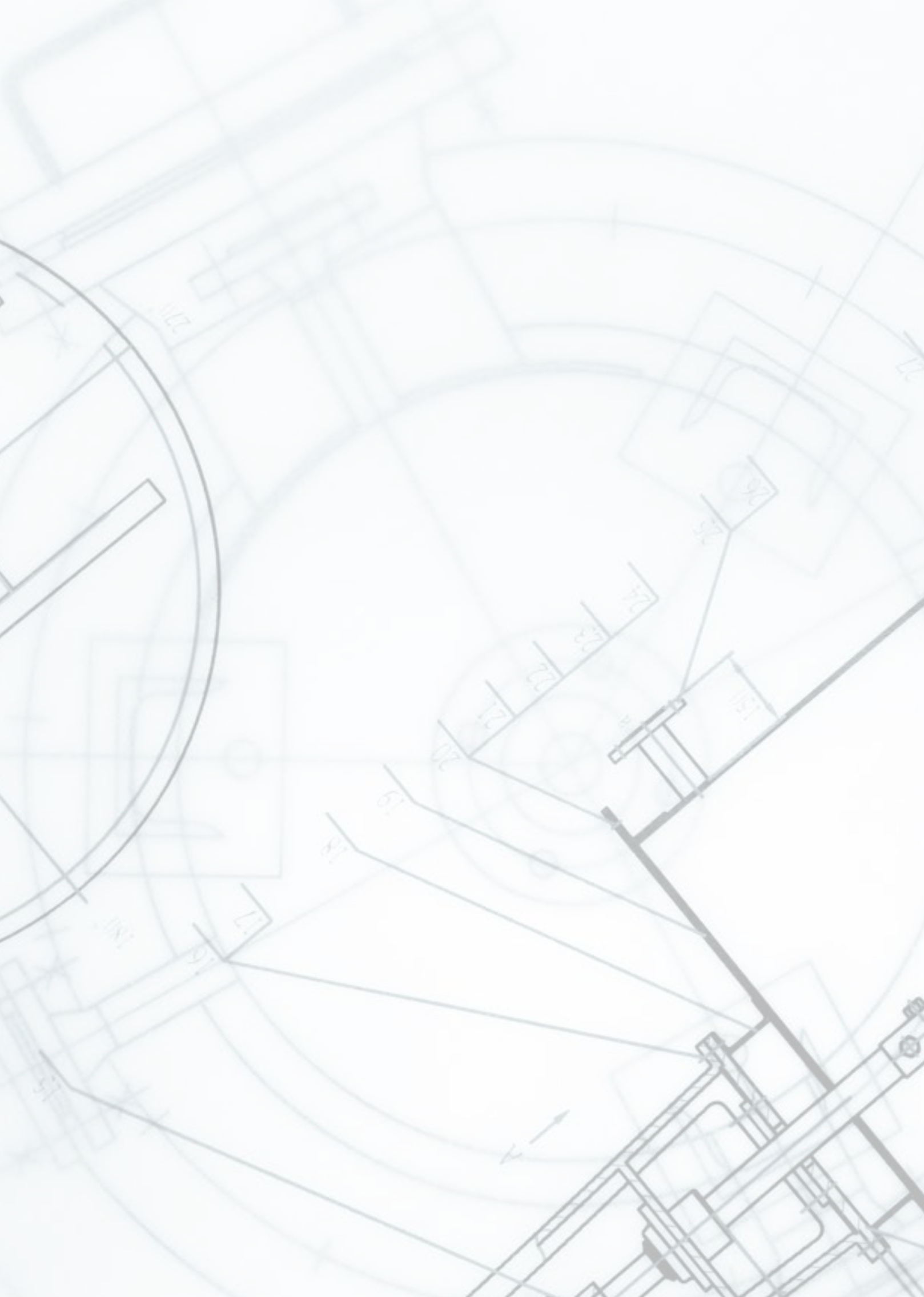
PRIGNITZ
MIKROSYSTEMTECHNIK

Product OVERVIEW

PRESSURE SENSORS FOR HYDROGEN



NEW P2P TECHNOLOGY FOR RUGGED PRESSURE SENSORS

Hydrogen has very aggressive chemical and physical characteristics in relation to metals, which causes embrittlement and permeation.
That is why the development of hydrogen-resistant and reliable transmitters, transducers and sensors is one of the main factors in the successful development of H2 technologies.
And PRIGNITZ Mikrosystemtechnik found a solution!

Thanks to our patented P2P Technology we can ensure long-term stability with high accuracy of our hydrogen pressure sensors. This is new type of two-chip technology, which enables the highest demands on robustness and performance such as stability, vibration, and shock resistance.
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.
The single-piece sensor element made of 316L stainless steel without any welds.
As a result, this technology has been successfully utilized for hydrogen applications.

Features of pressure sensors on the basic P2P TECHNOLOGY:

- pressure ranges from 4 bar to 1.000 bar
- accuracy: ≤ 0,5% or better
- made entirely of 316L stainless steel
- **no internal welding, no internal seals**
- T-Range: -40°C ... +125°C
- very high robustness agains external forces

P2P INSIDE®

EC79

PMP-S122-H

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen
MEASURING RANGES:	**4 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.5 % FSO
CERTIFICATION:	**EC 79/2009 type approval**

PMP-S222-H

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen, optimized for high quantities MOQ 250
MEASURING RANGES:	**10 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.5 % FSO
CERTIFICATION:	**EC 79/2009 type approval**

PMP-C122-H

OPTIMIZED FOR:	Configurable online, high pressure, aggressive media like Hydrogen
MEASURING RANGES:	**-1 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.25 % FSO
CERTIFICATION:	**EC 79/2009 type approval**

PMP-S122-ExnA .1H — Non-sparking pressure transmitter

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen
MEASURING RANGES:	**4 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.5 % FSO
CERTIFICATION:	**CSA certification:** suitable hazardous areas and conditions EC 79/2009 type approval

PMP-S122-Exi.1H
PMP-S122-Exi.2H — Intrinsically safe pressure transducer

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen
MEASURING RANGES:	**4 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0,5 % FSO
CERTIFICATION:	**CSA, ATEX, IECEx certification:** suitable hazardous areas and conditions EC 79/2009 type approval

PMP-C122-Exi.1H
PMP-C122-Exi.2H — Intrinsically safe pressure transducer

OPTIMIZED FOR:	configurable online, high pressure, aggressive media like Hydrogen
MEASURING RANGES:	**4 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0,25 % FSO
CERTIFICATION:	**CSA, ATEX, IECEx certification:** suitable hazardous areas and conditions EC 79/2009 type approval

PMP-S122.04-ExD — Flameproof Enclosure Pressure Transducer

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen
MEASURING RANGES:	**10 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.5 % FSO
CERTIFICATION:	**CSA certification:** suitable hazardous areas and conditions EC 79/2009 Hydrogen type approval

PMP-C122.04-ExD — Flameproof Enclosure Pressure Transducer

OPTIMIZED FOR:	High pressure, aggressive media like Hydrogen
MEASURING RANGES:	**10 ... 1.000 bar**
TECHNICAL SPECIFICATION:	**Wetted parts:** stainless steel 1.4404 (316L) **Over pressure range:** 1.400 bar **Cell Construction type:** with membrane inside **Accuracy:** ⩽0.25 % FSO Signal downscaling on request by PC-software
CERTIFICATION:	**CSA certification:** suitable hazardous areas and conditions EC 79/2009 Hydrogen type approval

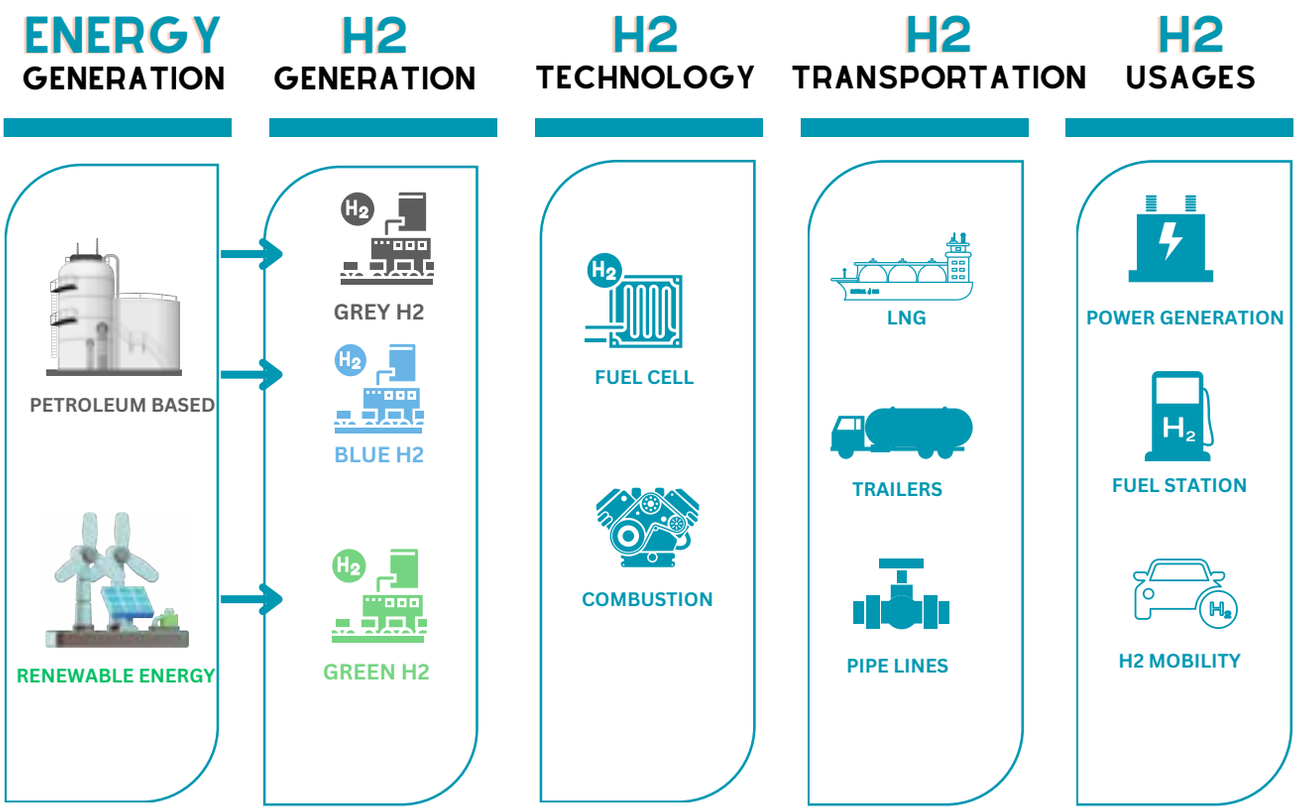
Important clarification of sensor photos

The sensor photos in this brochure are for informational purposes only. Each sensor photo shows only one of the possible sensor designs. Each sensor in our range has several variants of mechanical and electrical connections. This provides a wide range of possibilities for individual customization and seamless integration of the sensors into various systems and devices.

Please note that the exact technical specifications of each product are given in the respective Datasheets on: **prignitz-mst.de** or by contacting the sales department directly at the following e-mail: **info@prignitz-mst.de**

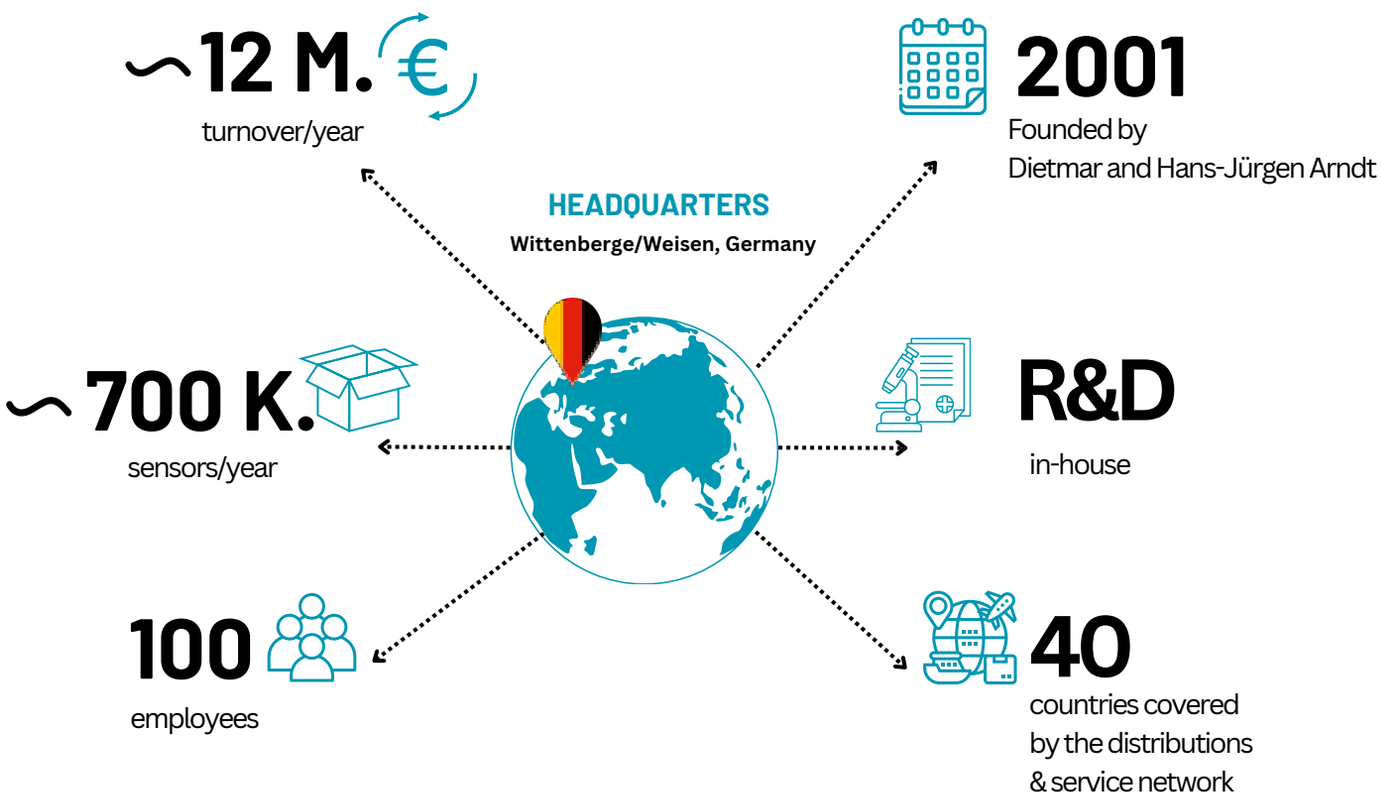
APPLICATION

Hydrogen can be produced by different energy sources.
It has a variety of applications in mobility, industry & energy.
Our rugged pressure sensors are applicable in all areas of the H2 value chain.



ABOUT US

We are a socially responsible, global manufacturer of sensors. We have a modern structure that uses all the power of innovation and in-house R&D.
Prignitz Mikrosystemtechnik develops, manufactures, and sells pressure sensors, temperature transmitters, and level probes with very high added value "from chip to calibrated transmitter". We have a sales and service network covering more than 40 countries. Based on our R&D, we offer our customers from a variety of industries the best possible customized solutions that fully meet their needs.
With PMST, OEM customers benefit from an experienced partner that has been operating as a professional supplier for decades.
We also implement Private Label solutions for a wide range of manufacturers and distributors.



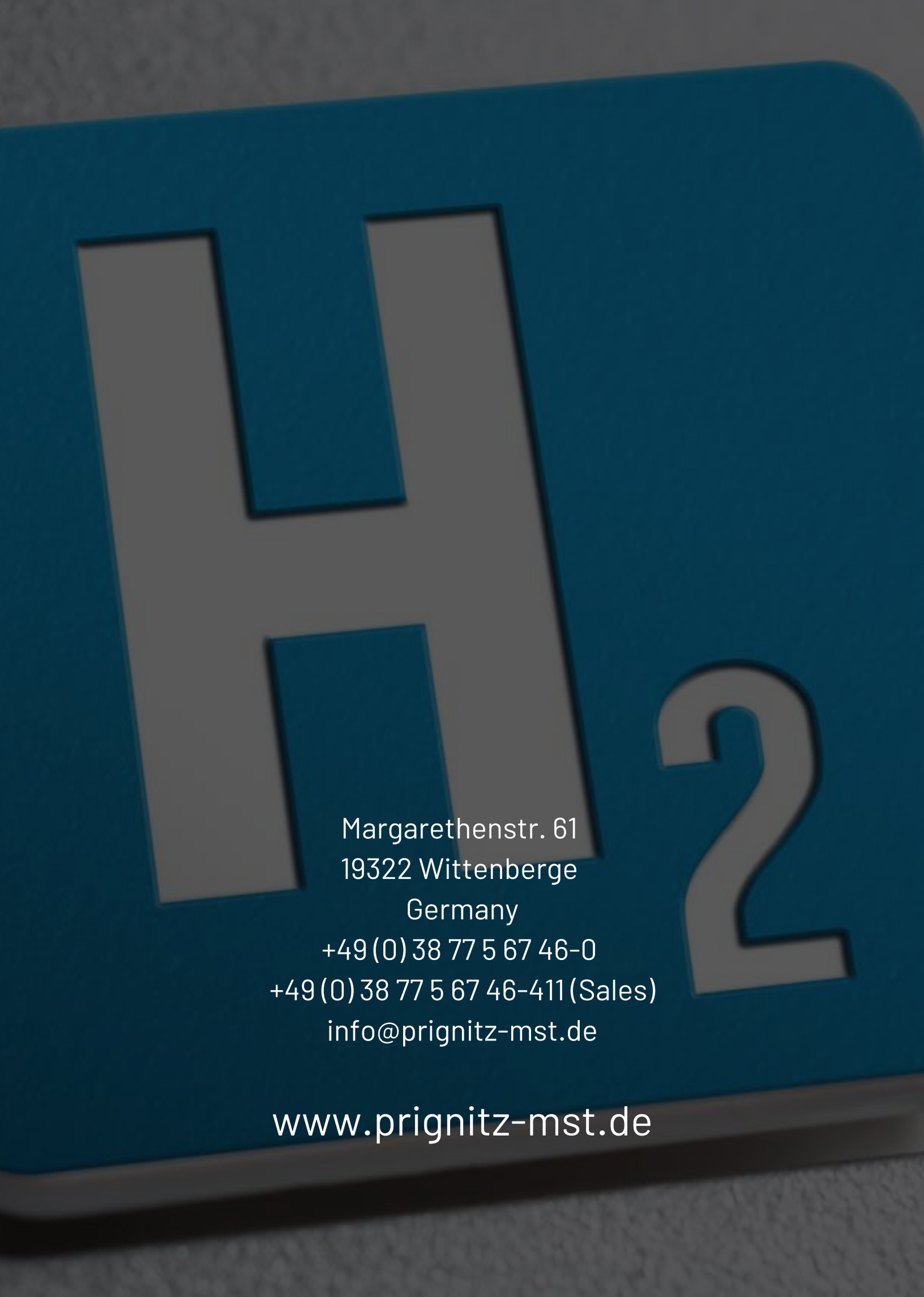
CE Compliance: EMC directive 2014 / 30 / EU according in EN 61326-2-3.
RoHS guideline: 2011/65/EU.
Approved according to the European Directive EC79/2009.
PRIGNITZ Mikrosystemtechnik GmbH is certified acc. to ISO 9001.
We offer a multitude of products compliant with ATEX, IECEx, CSA, and other worldwide relevant qualifications.

FIND MORE TECHNICAL INFORMATION

Pressure sensors from Prignitz MST:

Level probes from Prignitz MST:

Temperature sensors from Prignitz MST:



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