H_2-Medium Pressure Sensor MPS

For medium pressure applications

Product description

Our medium pressure sensor MPS was specially developed for use in hydrogen (H_2) applications, such as fuel cells and pressure regulators.

The sensor, with its variants for the different pressure ranges up to 30 bar, is designed for measuring pressure in stationary and mobile applications.

Materials that come into contact with fluids have been selected in accordance with the requirements for use with hydrogen and withstand the high stresses of use in hydrogen environments, even over long service lives. Although not required by law, the sensors are EC79 and HGV 3.1 tested.

For an optimal integration in systems, the sensor is available with analog or digital (SENT/LIN) output signal.

Fields of application

- H_2 pressure regulators
- Medium pressure in fuel cell systems

Features

Monobloc measuring element with no welds

Very good hydrogen compatibility

- Use of fluid-compatible materials
- Burst-proof and long service life
- Tested according to norms EC79 and HGV 3.1

Several design variants available

- Analog output voltage as well as SENT and LIN output
- Various connection threads, metric and UNF

April 2022

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Technical Specifications

Measurement range

Nominal pressure	0–30 bar
Over pressure	2× nominal pressure
Burst pressure	3× nominal pressure
Pressure type	Relative

Electrical characteristics

Supply voltage	5 V±0.25 V (12 V LIN)
Current consumption	max. 10 mA
Output signals	SENT, analog, LIN

Mechanical characteristics

Measuring element	Monopart with directly applied thick-film
Housing material	Stainless steel
Pressure connection	M10×1 or 7/16–20 UNF, with o-ring sealing
Thread	Male thread
Electrical connection	3-pin MQS connector
Installation position	Any
Weight	approx. 35 g

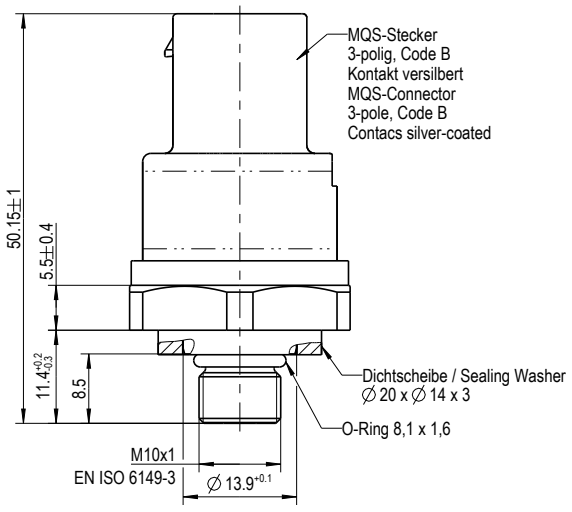
Accuracy

Total error	Standard accuracy ±1.0% FS @ 0–50 °C, ±1.5% FS @ –40–120 °C, up to ±0.5% FS @ –40–120 °C

Environmental conditions

Operating temperature range	–40–120 °C
Media temperature range	–40–120 °C
Media compatibility	Hydrogen, air, nitrogen, coolant (DI-water, ethylene glycol)

Dimensions



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April 2022