

H₂-low and medium pressure sensor L-MPS

For medium pressure applications and fuel cell systems



Product description



Our low pressure sensor L-MPS was specifically developed for use in hydrogen (H₂) applications, such as fuel cells and pressure regulators.

The sensor has variants for pressure ranges up to 6 bar (low pressure variant) or up to 30 bar (medium pressure variant), and 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. The sensors are available with analog output signal.

Fields of application

- medium or low pressure in fuel cell systems

Features

MEMS-Si measuring element with oil reservoir

Very good hydrogen compatibility

- Use of fluid-compatible materials
- Burst-proof and long service life

Only one design variant available

- Analog output voltage
- Connection thread M16 × 1.5

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Technical Specifications

Measurement Range

| | |
|------------------|----------------------|
| Nominal pressure | 0–6 to 0–30 bar |
| Over pressure | 2 × nominal pressure |
| Burst pressure | 3 × nominal pressure |
| Pressure type | Absolute |

Electrical Characteristics

| | |
|---------------------|------------|
| Supply voltage | 5 V±0.25 V |
| Current consumption | max. 10 mA |
| Output signals | Analog |

Mechanical Characteristics

| | |
|---------------------|------------------------------------|
| Measuring element | MEMS-Si element with oil reservoir |
| Housing material | Stainless steel |
| Pressure connection | M16 × 1.5 |
| Thread | Male thread |

| | |
|-----------------------|---------------------|
| Electrical connection | 3-pin MQS connector |
| Installation position | Any ¹⁾ |
| Weight | Approx. 51 g |

Accuracy

| | |
|-------------|---|
| Total error | Standard accuracy ±1.0% FS @ 0–50 °C, ±1.5% 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) |

¹⁾ except freeze resistant installation

Dimension

