

VST temperature sensor

For medium pressure applications and fuel cell systems



Product description



The VST temperature sensor is used in applications where extremely fast response times are required, while still ensuring media compatibility.

Due to the compact design and the use of media-specific materials, the VST achieves excellent results in applications where space is critical, as well as under harsh environmental conditions. The specially developed measuring element not only ensures fast response times but also a high degree of accuracy.

The transmitter version of the VST with a linearised, analog output signal also offers the electrical protection and diagnostic functions typical to the automotive industry.

Fields of application

- H₂ applications and special media
- Cooling-water systems
- Fuel cell systems

Features

Specially developed measuring element and evaluation electronics

- Fast response times
- High accuracy

Use of materials with proven media compatibility

- Excellent media compatibility
- Suitable for high ambient temperatures
- EC79-tested version available

Compact design

- Suitable for pressure up to 30 bar
- Ideal for integration into applications where space is critical

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Technical Specifications

Measurement range

| | |
|-------------|--|
| Temperature | -40–115 °C other available on request |
|-------------|--|

Electrical characteristics

| | |
|---------------------|---|
| Supply voltage | 5 V±0,25 V |
| Current consumption | max. 10 mA |
| Output signals | 0.5 V–4.5 V, analog PT1000 Class F0.15 or mechanical properties Class F0-3 |

Mechanical characteristics

| | |
|---------------------|------------------------------|
| Housing material | Stainless steel |
| Pressure connection | M10x1 with o-ring sealing |
| Thread | Male thread |

| | |
|-----------------------|---------------------|
| Electrical connection | 3-pin MQS connector |
| Installation position | Any |
| Weight | approx. 26 g |

Accuracy

| | |
|-------------|--|
| Total error | High accuracy up to ±1K, standard ±1.5K |
|-------------|--|

Environmental conditions

| | |
|-----------------------------|--|
| Operating temperature range | -40–120 °C |
| Media temperature range | -50–120 °C |
| Media compatibility | Hydrogen, air, nitrogen, coolant (DI-water, ethylene glycol) |

Dimensions

