

PTM pressure-sensor module

For system integration



Product description



The pressure-transmitter module (PTM) takes into account the general trend towards miniaturisation and cost effectiveness. Thanks to their optimised size, PTM-series sensors can be used easily and flexibly in applications where installation space is critical.

In addition, the modular design – which features numerous possibilities for electrical and mechanical interfaces – also permits simple integration into existing customer systems.

The use of a high-precision evaluation circuit directly on the ceramic pressure cell makes it possible to output a temperature-compensated analogue or digital signal. Stable and accurate measurements are achieved over a wide temperature range, even under harsh conditions.

Fields of application

- Integration into control units for
 - Braking systems
 - Clutches
- Mobile hydraulics
- Pneumatic systems

Features

Compact size

- Cost effective
- Can be integrated into applications where space is critical

Integrated evaluation electronics

- Stable and accurate measured values over a wide temperature range
- Customer-specific output signal, temperature-compensated (analogue, LIN)
- Diagnostic and protective functions

Variety of electrical and mechanical connections available

- Easy adaptation into existing systems

Ceramic measuring element

- Very good fluid compatibility

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Technical Specifications

Measurement range

Nominal pressure	10–100 bar
Over pressure	2 × nominal pressure
Burst pressure	3 × nominal pressure

Electrical characteristics

Supply voltage	5 V
Output signal	0.5–4,5 V (ratiometric) LIN PWM
Overvoltage protection	up to 33 V
Polarity-reversal resistance	up to 33 V

Mechanical characteristics

Measuring element	Ceramic cell with resistive measuring bridge
Pressure connection	As per customer requirements
Electrical connection	Flex conductor connection, stranded wire, solder contacts ¹⁾

Installation position	Any
Weight	approx. 5 g

Accuracy

Total error ²⁾	± 0.5 % FS (25 °C) ± 1 % FS (0–90 °C) ± 3 % FS (-40–125 °C)
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Environmental conditions

Operating temperature range	–40–125 °C
Media temperature range	–40–125 °C
Media compatibility	Hydraulic oils, ATF, exhaust gas, brake fluid

¹⁾ Other connections available on request

²⁾ Includes repeatability, hysteresis, non-linearity (TBL), calibration and temperature effects

