CCT pressure sensor

For automotive air-conditioning systems

Product description

The climate-control pressure transmitter (CCT) was developed specifically for measuring the pressure of refrigerants in motor vehicles.

The hermetically sealed and robust aluminium housing makes this sensor a cost-effective solution for automotive air-conditioning systems. Thanks to its high-quality stainless-steel measuring element, the CCT is compatible with a wide range of fluids. Its innovative evaluation electronics reliably deliver high-precision measurements over a wide temperature range, using LIN or analog interface.

Specifically tailored to the requirements of the automotive industry, the CCT also complies with the current provisions regarding EMC and ESD.

Fields of application

- Climate control in HFO 1234yf and R134a systems
- Compressor protection

Features

Specially designed stainless-steel measuring element

- Excellent long-term stability
- High compatibility with fluids

Application-specific evaluation electronics

- Tried-and-tested automotive EMC/ESD resistance
- Extended diagnostic and protective functions
- Verified LIN 2.1 conformity with sleep mode

Tried-and-tested aluminium housing

- Corrosion resistant
- Light weight
- Cost effective

Variety of analogue and digital output signals available

- Easy integration into existing systems

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Technical Specifications

Measurement range

Nominal pressure	0–10 to 0–100 bar
Over pressure	2× nominal pressure
Burst pressure	3× nominal pressure
Pressure type	Relative

Electrical characteristics

Supply voltage	9–16 V (LIN), 5 V±0.5 V (analog)
Current consumption	max. 10 mA
Output signals	LIN 1.3 / LIN 2.1 0.5 to 4.5 V (ratiometric)

Mechanical characteristics

Measuring element	Stainless steel cell with resistive measuring bridge
Housing material	Aluminium
Pressure connection	HEX 24, M10×1.25
Thread	Female thread [1]

Electrical connection	3-pin RD plug [1]
Installation position	Any
Weight	Approx. 15 g

Accuracy

Total error	± 0.5 % FS (0–90 °C) ± 1 % FS (–40–125 °C) [2]

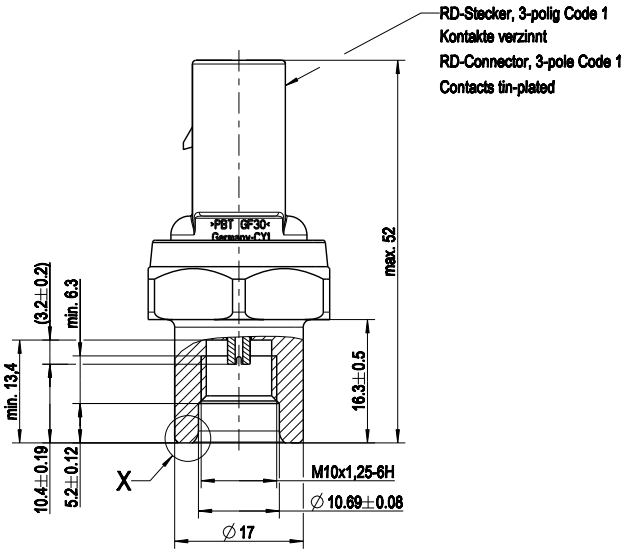
Environmental conditions

Operating temperature range	–40–125 °C
Media temperature range	–40–140 °C (150 °C)
Media compatibility	R134a, HFO 1234yf, PAG oil, POE oil

[1] Other pressure and electrical connections available on request

[2] Includes repeatability, hysteresis, non-linearity (TBL), calibration and temperature effects; depends on pressure and temperature range

Dimensions



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