525964

Pressure sensor

Construction

The analogue pressure sensor is screwed into a T connector. The electrical connection is established via the 4 mm safety connector plugs fitted to the connecting lead.

Function

A diaphragm inside the pressure sensor is distorted as a result of the measuring pressure applied. This distortion leads to a change in electrical resistance of the elements on the membrane (piezoresistive effect). This resistance change is electronically converted, temperature compensated and amplified.

Note

Please observe the polarity of the connected voltage during operation. The terminal plugs have been colour coded.

Terminal plugs		
Operating pressure	Positive terminal: Negative terminal:	red blue
Analogue output signals	Voltage:	black

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Technical data

Electrical	
Permissible operating voltage	15 – 30 V DC
Voltage output	0 – 10 V
Load resistance	≥4.7 kΩ
Measuring range	0 – 100 bar
Critical frequency	1 kHz
Ambient operating temperature	-10 – +70 °C
Temperature effect comp. range (-10 – +80 °C)	±0.2 % FSD*/10 K
Linearity	±0.5 % FSD*
Reproducibility	±0.1 % FSD*
Protection class (DIN 40 050)	IP 67
Weight	260 g
Connection	cable with 4 mm safety connector plugs

* FSD = full-scale deflection