525963

Temperature sensor

Construction

The analogue temperature 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

Temperature is measured by a PT100 resistance thermometer, which operates on the principle that the electrical resistence of platinum varies in proportion to changes in temperature. Platinum has a positive temperature coefficient, i. e. its resistance increases as the temperature rises. This resistance change is electronically converted 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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Temperature sensor

Technical data

Electrical	
Permissible operating voltage	20 – 30 V DC
Voltage output	0 – 10 V
Load resistance	≥4.7 kΩ
Measuring range	0 – 100 °C
Ambient operating temperature	-10 – +100 °C
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