TFK02

Compact Resistance Temperature Sensor (Pt100)

- with angle plug acc. to DIN EN 175301-803 form A
- small design
- interchangeable insert
- integrated transmitter optional
- resistance, current and voltage output
- wetted parts made of stainless steel 1.4571
- measuring range from -200 °C to 600 °C
- short response time
- easy to service
- max. pressure: 25 bar (40 bar on request)

Description:

A temperature-dependent electrical resistance is integrated in a stainless steel protective tube. This changes its ohmic resistance depending on the temperature of the medium.
In the version with built-in transmitter, this value is converted into a 4...20 mA current signal or a 0-10 V voltage signal and provided at the terminals of the cubic plug. In the version without transmitter, the pure resistance value can be tapped at the connector. To achieve short response times, there is a version with a rejuvenated immersion shaft.
The use of the angle plug according to DIN EN 175301-803 is advantageous.

Typical applications:

The resistance thermometers are very well suited for use in general machine, apparatus, plant, container and pipeline construction, as well as in the chemical and process engineering and food industries, where they are preferably used for detecting the temperature in liquid and gaseous media. Their compact design makes them particularly suitable for installation in places with limited space.

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Models:

TFK02.xPx:	output Pt100, 2-,3 or 4-wire single or double element
TFK02.A04:	output 4–20 mA, 2-wire
TFK02.V10:	output 0–10 V, 3-wire

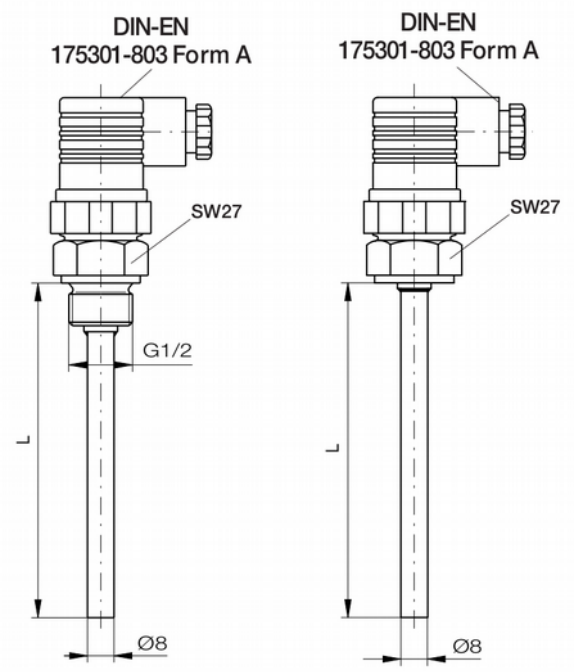
Technical Data:

Sensor:	Pt100 acc. to DIN IEC 751, class A
Measuring ranges:	-50…200 °C w/o neck tube -50…400 °C with neck tube 50 mm 0…600 °C with neck tube -200...+100 °C with neck tube 50 mm
Electr. connection:	angle plug form A acc. to DIN EN 175301-803, IP65
Thermowell:	
Diameter	6 or 8 mm
Material:	stainless steel 1.4571
Process connection:	fix screw connection or movable compression fitting others (e.g. Clamp) on request
Max. pressure:	PN 25 (PN 40 on request)

Transmitter:

Power supply:	depend on output
Output:	4–20 mA, 2-wire, 10...35 VDC 0–10 V, 3-wire, 15...35 VDC
Min. turn down ratio:	20 Kelvin
Max. turn down ratio:	800 Kelvin
Accuracy:	0,3 % of full scale

Dimensions:



Order Code:

Order number: **TFK02. 1P2. 6. 08F. 0050. 200. 0**

Compact resistance temperature sensor

Sensor:
1P2 = 1 x Pt100, 2-wire
1P3 = 1 x Pt100, 3 wire
1P4 = 1 x Pt100, 4 wire
2P2 = 2 x Pt100, 2-wire
A04 = 4–20 mA*
V10 = 0–10 V*
*please specify measuring range preferably 0..50 °C, 0..100 °C, 0…120 °C)

Diameter of immersion shaft:
6 = 6 mm
8 = 8 mm

Process connection:
0 = without screw conn., only immersion shaft (compression fitting see accessories)
08F = G 1/4 A fix
10F = G 3/8 A fix
15F = G 1/2 A fix
2NF = 1/2" NPT fix
other connections on request

Installation length L:**
0025 = 25 mm (only with fix screw connection)
0050 = 50 mm (only with fix screw connection)
0075 = 75 mm (only with fix screw connection)
0100 = 100 mm **
0160 = 160 mm **
0200 = 200 mm **
0250 = 250 mm **
0500 = 500 mm **
xxxx = please specify in plain text

Temperature range:
200 = -50…200 °C without neck tube
400 = -50…400 °C with neck tube 50 mm
600 = 0…600 °C with neck tube
a) w/o transmitter 50 mm
b) with transmitter 100 mm, also fix measuring insert
100 = -200...+100 °C with neck tube 50 mm (special design)

Options:
0 = without
VR = rejuvenated immersion shaft (description see “Options”)

** with fix screw connection: measured from sealing edge of screw connection; with removable connection: entire shaft length

Accessories:

Order number: **SVQ. V.08. 06**

Compression fitting (installation length min. 100 mm)

Process connection:
V.08 = G 1/4 male
V.10 = G 3/8 male
V.15 = G 1/2 male
V.08N = 1/4“ NPT
V.15N = 1/2“ NPT

Diameter of immersion shaft:
06 = 6 mm
08 = 8 mm

Options:

Thermowell reduced to 3 mm diameter for faster response times. Only for versions with fixed screw connection and thermowell diameter 6 mm.

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