



Resistance Thermometer PT100 Sensor Model TR10-H

Electrical Temperature Measurement

Article no.	Range	Shaft	Price £	Price €
443595	50° - 250°C	150mm	£225.40	€281.80

Applications

- For direct process connection
- Machine building
- Motors
- Storage
- Pipelines and vessels

Special features

- Application ranges from -200 ... +600 °C
- For insertion, screw-in with optional process connection
- Connection head form B or JS
- Explosion-protected versions Ex-i, Ex-n and NAMUR NE24

Description

Resistance thermometers without thermowells are particularly suitable for those applications in which the metallic sensor tip is mounted directly into bored holes (e.g. in machine components) or directly into the process for any application with no chemically aggressive media or abrasion.

For mounting into a thermowell, a spring-loaded compression should be provided, since only this can press the sensor tip into the bottom of the thermowell. Mounting is usually made directly into the process. Fastening elements such as threaded fittings, union nuts etc. can also be used.

The flexible part of the sensor is a mineral-insulated cable (sheathed cable). It consists of a stainless steel outer sheath in which the internal lead is pressed and isolated within a high-density ceramic mass. The measuring resistance is connected directly to the internal leads of the sheathed cable and is, therefore, also suitable for use at higher temperatures.

Due to their flexibility and the small possible diameters, sheathed resistance thermometers can be used in locations that are not easily accessible, since, with the exception of the sensor tip and the pot seal of the connection cable, the sheath can be bent to a radius of three times the diameter of the cable.

Possible measuring ranges

- 50 ... +250 °C
- 50 ... +450 °C
- 200 ... +250 °C
- 50 ... +400 °C (only Class A)
- 200 ... +450 °C
- 200 ... +600 °C (from 450 °C Class B)
- 200 ... +400 °C
- 50 ... +600 °C (only Class B)

Compression fitting

This version allows simple adjustment to the required insertion length at the installation point.

Since the compression fitting can be slid along the sensor, the A and N(MH) dimensions specify the as-delivered condition. The length of the compression fitting determines the smallest possible neck length, N(MH), of approx. 40 mm.

Material: stainless steel

Sealing ring material: stainless steel or PTFE

Stainless steel sealing rings can be adjusted once; once they have been unscrewed, sliding along the sheath is no longer possible.

- Max. temperature at process connection 500 °C
- Max. pressure load 40 bar

PTFE sealing rings can be adjusted several times, after unscrewing, repeated sliding along the sheath is still possible.

- Max. temperature at process connection 150 °C
- Max. pressure load 25 bar

For sheathed resistance thermometers with a Ø of 2 mm, only PTFE sealing rings are approved.

