

Pt100 insertion probe for soft-plastic media

GES 401

Introduction

Reliable temperature checks in soft-plastic media need a probe that enters the material cleanly and gives stable readings without unnecessary handling effort. This Pt100 insertion probe uses a needle-shaped V4A insertion tube, with a standard 150 mm probe length and selectable diameters from Ø3 mm to Ø8 mm.

The family supports demanding temperature tasks with a measuring range of -50 ... +400 °C. For applications involving acid or seawater, a Teflon- covered probe option is available with a maximum temperature of 250 °C. Response behavior is suited to practical field and process checks, with T90 values of approx. 10 s in water at 0.4 m/s and approx. 40 s in air at 2 m/s.

Configuration can be matched to the measuring setup: Pt100 is standard in 4-wire connection, with 2-wire and 3-wire versions also available. Accuracy classes include DIN class B, AA and 1/10 DIN class B, while cable, connector and handle options allow the probe to fit different instruments and operating environments.

Features

Pt100 sensor element

The probe uses a Pt100 resistance sensor. Standard configuration is 4-wire, with 2-wire and 3-wire versions available.

Probe dimensions

Standard probe length is 150 mm. Other lengths are available, with V4A probe diameters of Ø3 mm, Ø4 mm, Ø5 mm, Ø6 mm or Ø8 mm.

Connection types

Electrical connection options include Mini-DIN connector, 2 x Ø4 mm banana plugs, Ø3.5 mm jack plug or loose ends with ferrules.

Cable versions

Cable options include PVC cable (standard, -20 ... +70 °C), silicone cable (-50 ... +200 °C), Teflon cable (-200 ... +250 °C) and coiled cable versions with approx. 1.2 m or approx. 6 m extended length. Except for coiled cables, the cables are available in various lengths

Handle versions

The standard version uses a plastic handle with bend protection. Options include a waterproof potted handle (handle max. +100 °C - only with PVC cable) or a Teflon handle.



Clean insertion

Needle-shaped V4A tube supports temperature checks in soft-plastic media.



Fast response

T90 is approx. 10 s in water at 0.4 m/s and approx. 40 s in air at 2 m/s.



Wide temperature use

Measures -50 ... +400 °C; Teflon-covered versions operate from -50 to 250 °C.



Accuracy to task

Available in DIN class B, AA or 1/10 DIN class B for different measurement requirements.



Media-ready option

Teflon-covered probe version is available for acid and seawater applications.

Technical Specifications

Measurement

Measuring principle	RTD
Temperature sensor	Pt100, 4-wire (standard) / 2-wire / 3-wire, Class B / Class AA / 1/10 Class B
Temperature range	-50...+400 °C (-50...+250 °C when Teflon-shrink-wrapped)

Probe

Cable	Silicone (-50 ... +200 °C) / PTFE (-200 ... +250 °C) / PVC (-20 ... +70 °C) / Coiled
Connection	4-wire Mini-DIN / 2 x banana plug Ø4 mm / Jack connector Ø3.5 mm / Ferruled loose ends
Probe Diameter	3 mm (standard) / 4 mm / 5 mm / 6 mm / 8 mm
Probe length	Standard: 150 mm (other lengths available upon request)
Material	V4A stainless steel, optionally Teflon-shrink-wrapped
Handle	Plastic with bend protection / Waterproof casted handle (max. +100 °C) / Teflon

Details

