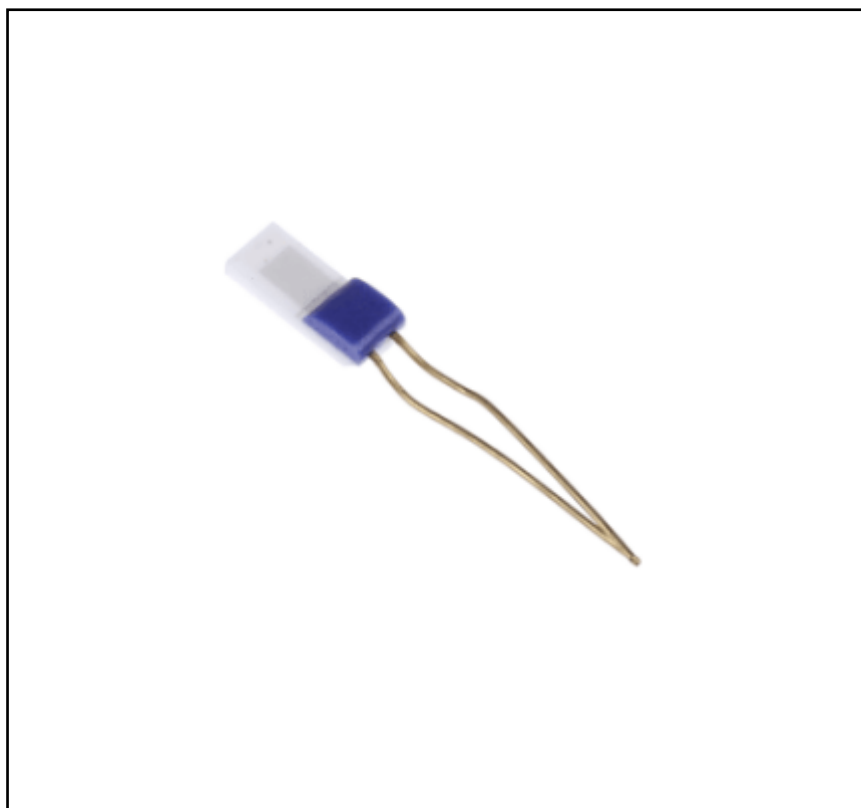


FEATURES

- Thin film construction
- High stability and accurate output
- Linear output over a wide operating range
- A fast thermal response time of 0.1s
- Resistant to vibration and shock
- Temperature measurement range from -50 to 500°C
- 10mm lead wires

RS PRO 2 wire PT100 Sensor, -50°C min +500°C max, 5mm Probe Length x 2mm Probe Diameter

RS Stock No.: 290-5070



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

From RS Pro a high-quality and reliable Pt100 and Pt1000 PRT (Platinum Resistance Thermometer) or RTD (Resistance Temperature Detector). These temperature sensors have a thin film construction for accurate and reliable temperature measurement along with a fast response time to temperature changes. This design is also resistant to both vibration and shock. The flat design of these PRTs makes them ideal for measuring temperatures on surfaces

General Specifications

Sensor Type	PT100
Probe Material	Platinum
Number Of Wires	2
Accuracy	Class B
Response Time	0.1s
Construction	Thin film, 10mm tails
Vibration Resistant	Yes
Tolerance	Class B
Applications	These thin film PRT temperature sensors are suitable for surface and immersion applications where protected. Their flat design means they offer a minimally intrusive means of measuring temperatures on flat surfaces. Applications include the following: Automotive industry, Chemical industry, Micro-electronics, Air conditioning and refrigeration, Air, gas and liquid temperature measurement, Food processing, Laboratories

Electrical Specifications

Ice point resistance	100Ω
Fundamental interval (0°C to 100°C)	38.5Ω (nominal)
Self-heating	<0.5°C/mW
Stability	±0.05%
Measuring current	1mA

Mechanical Specifications

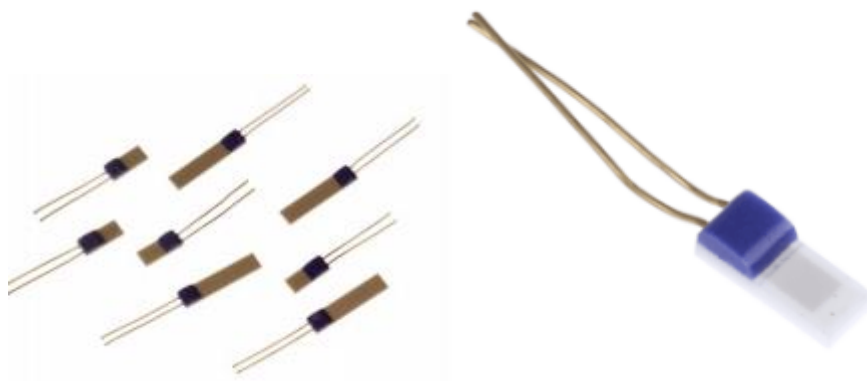
Probe Length	5mm
Probe Diameter	2mm
Termination Type	Solder
Process Connection	Chip

Operation Environment Specifications

Minimum Temperature Sensed	-50°C
Maximum Temperature Sensed	500°C

Approvals

Compliance/Certifications	IEC751
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Resistance	Dimensions (width x length)	Tolerance Class	Allied code	RS order code
Pt100	2 x 5.0mm	Class A	70646146	611-7788
Pt100	2 x 5.0mm	Class B	70646148	611-7801
Pt100	2 x 5.0mm	Class B	70642888	290-5070 (Packet of 5)
Pt100	2 x 10mm	Class A	70643577	362-9799
Pt100	2 x 10mm	Class B	70641762	237-1607
Pt100	2.0 x 10mm	1/3DIN	70643578	362-9812
Pt100	2.0 x 2.3mm	Class A	70643579	362-9834
Pt100	2.0 x 2.3mm	Class B	70643580	362-9840
Pt100	2.0 x 2.3mm	1/3DIN	70643581	362-9856

Pt100 Elements (continued)

Resistance	Dimensions (width x length)	Tolerance Class	Allied code	RS order code
Pt100	1.2 x 1.6mm	Class A	70646834	666-7362
Pt100	1.2 x 1.6mm	Class B	70646831	666-7353
Pt100	1.0 x 3.0mm	Class A	70646833	666-7359
Pt100	1.0 x 3.0mm	Class B	70646832	666-7356
Pt100	2.0 x 5.0mm	1/3 Din	70656467	814-0162
Pt100	1.2 x 4.0mm	Class B	70656468	814-0165
Pt100	1.2 x 4.0mm	Class A	70656469	814-0169