

## 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

RS Stock No.: 611-7788



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

<b>Sensor Type</b>	PT100
<b>Probe Material</b>	Platinum
<b>Number Of Wires</b>	2
<b>Accuracy</b>	Class A
<b>Response Time</b>	0.1s
<b>Construction</b>	Thin film, 10mm tails
<b>Vibration Resistant</b>	Yes
<b>Tolerance</b>	Class A
<b>Applications</b>	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

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

## Mechanical Specifications

Patch dimensions	2mm x 5.0mm
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	<b>666-7362</b>
Pt100	1.2 x 1.6mm	Class B	70646831	<b>666-7353</b>
Pt100	1.0 x 3.0mm	Class A	70646833	<b>666-7359</b>
Pt100	1.0 x 3.0mm	Class B	70646832	<b>666-7356</b>
Pt100	2.0 x 5.0mm	1/3 Din	70656467	<b>814-0162</b>
Pt100	1.2 x 4.0mm	Class B	70656468	<b>814-0165</b>
Pt100	1.2 x 4.0mm	Class A	70656469	<b>814-0169</b>