

#### **FEATURES**

- High stability sensing element with a precision output
- IEC 60751 Class B accuracy/tolerance
- Temperature measurement range of -50°C to 200°C
- 4 lead wires for accurate readings
- Leads connect to any 2 3 or 4 wire PT100 instrument
- Rigid 316 corrosion resistant stainless steel sheath for protection of sensing element
- Silicone rubber insulation can withstand a wide temperature range and offers flexibility

# RS PRO 4 wire PT100 Sensor, -50°C min +200°C max, 100mm Probe Length x 6mm Probe Diameter

RS Stock No.: 611-8264



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.

## Platinum Resistance Temperature Sensors



### **Product Description**

From RS Pro a high-quality and reliable Pt100 PRT (Platinum Resistance Thermometer) or RTD (Resistance Temperature Detector) sensing probe. This RTD probe has a robust construction with the sensing element encased in a rigid 316 stainless steel sheath. The leads have a durable and flexible silicone rubber insulation. This platinum resistance thermometer provides accurate and reliable temperature measurement for a wide range of applications.

#### **General Specifications**

| Sensor Type         | PT100   |
|---------------------|---|
| Probe Material      | Stainless Steel   |
| Number Of Wires     | 4   |
| Accuracy            | Class B   |
| Construction        | 6.0mm diameter 316 stainless steel sheath.  |
| Vibration Resistant | Yes   |
| Tolerance           | In accordance with IEC 60751 W0.15 (Class A) -100°C to 450°C W0.3 (Class B) -196°C to 660°C   |
| Applications        | This sensor has a variety of application use such as; Process industry, Laboratories, Chemical industry, Plastics processing, Stoves and grills, Air, gas and liquid temperature measurement, Exhaust gas temperature measurement |

#### **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             |

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### **Mechanical Specifications**

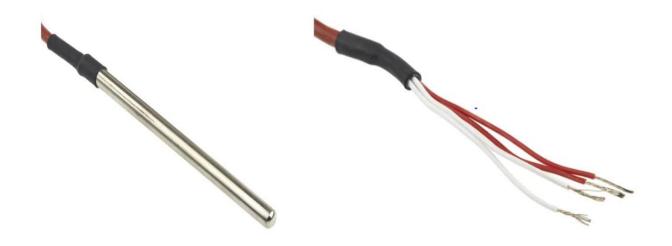
| Patch dimensions    | 100mm x 100mm  |
|---------------------|--|
| Probe Length        | 100mm  |
| Probe Diameter      | 100mm  |
| Termination Type    | Cable  |
| Cable Length        | 2m   |
| Process Connection  | Probe  |
| Extended lead wires | 2 metres flexible silicone rubber insulated, 7/0.2mm |
| Sheath              | Rigid 316 stainless steel sheath, 6.0mm diameter     |

### **Operation Environment Specifications**

| Minimum Temperature Sensed | -50°C |
|----------------------------|-------|
| Maximum Temperature Sensed | 200°C |

### **Approvals**

| Compliance/Certifications    | IEC               |
|------------------------------|-------------------|
| Hazardous Area Certification | IEC 60751 Class B |



## Platinum Resistance Temperature Sensors



| Probe Diameter | Probe Length | Cable Length | Allied code | RS Order Number |
|----------------|--------------|--------------|-------------|-----------------|
| 6mm            | 50mm         | 2 metres     | 70644349    | 455-3968        |
| 6mm            | 100mm        | 2 metres     | 70646193    | 611-8264        |

| Туре | Conductors | mm²   | Cores (4 core)     | Jacket | Reel Length | Allied<br>Code | RS order<br>Code |
|------|------------|-------|--------------------|--------|-------------|----------------|------------------|
| RTD  | 7/0.2mm    | 0.219 | 2x Red / 2 x White |        | 10 metres   | 70657147       | 827-5823         |
| RTD  | 7/0.2mm    | 0.219 | 2x Red / 2 x White |        | 25 metres   | 70644361       | 455-4242         |

Overall sheath Dimension (approx.)

4.0mmØ