

## TECHNICAL DATA

# 5624 Platinum Resistance Thermometer to 1000 °C



## Key features

- Operates within a temperature range of 0 °C to 1000 °C.
- Accuracy of  $\pm 0.05^{\circ}\text{C}$  up to  $962^{\circ}\text{C}$ , which includes short-term stability and calibration uncertainty.
- Long-term drift of  $0.01^{\circ}\text{C}$  at  $0^{\circ}\text{C}$  after 100 hours at  $1000^{\circ}\text{C}$ .
- Ideal for measurements requiring precision PRT accuracy at high thermocouple temperatures, a superior alternative to expensive high-temperature SPRTs or less accurate thermocouples.

## Product overview: 5624 Platinum Resistance Thermometer to 1000 °C

The 5624 is ideal for use as a reference thermometer in high-temperature furnaces, the 5624 can reach a temperature of  $1000^{\circ}\text{C}$  with long-term drift at  $0^{\circ}\text{C}$  of 10 mK and accuracy (including short-term stability and calibration uncertainty over the full range) of 55 mK! Due to Fluke Calibration's proprietary sensor design, this PRT has short-term stability of 5 mK, and an immersion requirement of less than 153 mm (6") at  $700^{\circ}\text{C}$ .

The 5624 is assembled in an alumina sheath that is 508 mm (20") long and 6.35 mm (0.25") in diameter. Several termination configurations can be selected to match different thermometer readouts. Each 5624 comes with a NIST-traceable, NVLAP-accredited fixed-point calibration from  $0^{\circ}\text{C}$  to  $962^{\circ}\text{C}$ . That's a fixed-point calibration! The 5624 also comes in a protective carrying case.

## Specifications: 5624 Platinum Resistance Thermometer to 1000 °C

Specifications	
<b>Range</b>	0 °C to 1000 °C
<b>Calibration Uncertainty</b>	± 0.004 °C at 0 °C ± 0.020 °C at 962 °C
<b>Long-term Drift (Rtpw) (k=2)</b>	<0.01 °C at 0 °C/100 hours at 1000 °C <0.06 °C at 0 °C/1000 hours at 1000 °C
<b>Calibrated Accuracy† (k=2)</b>	± 0.006 °C at 0 °C ± 0.031 °C at 660 °C ± 0.041 °C at 961 °C
<b>Short-term Stability</b>	± 0.005 °C
<b>Immersion</b>	<153 mm (6 in) at 700 °C
<b>Rtpw</b>	10 ohm (± 0.1 ohm)
<b>Hysteresis</b>	<0.005 °C from 0 °C to 1000 °C
<b>Thermocycling</b>	<0.01 °C, 10 cycles from 0 to 1000 °C
<b>Current</b>	1 mA
<b>Size</b>	6.35 mm (0.25 in) O.D.
<b>Length</b>	508 mm (20 in)
<b>Sheath Material</b>	Alumina
<b>Calibration</b>	Included 1913-6 fixed-point calibration
Includes calibration and 100 hr drift	

## Ordering information



### 5624 Platinum Resistance Thermometer to 1000 °C

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#### 5624-20-X

Probe, 1000°C, 10 ohm PRT, 6.35 mm x 508 mm (0.25" x 20"), (includes 2609 case)

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X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).

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