

Ultra high-temp PRT



- Temperature range of 0 °C to 1000 °C
- Calibrated accuracy of ± 0.006 °C at 0 °C
- Long-term drift of 0.01 °C at 0 °C after 100 hours at 1000 °C
- Designed by Hart's primary standards design team

At Hart, we receive many requests for precision PRT accuracy at thermocouple temperatures. Until now metrologist have settled for expensive, high-temperature SPRTs or inaccurate thermocouples for high-temperature measurement.

We're pleased to introduce the world's finest high-temperature secondary PRT, our Model 5624.

Ideal for use as a reference thermometer in high-temperature furnaces, the 5624 can reach a temperature of 1000 °C with long-term drift at 0 °C of only 10 mK! Due to Hart Scientific's proprietary sensor

design, this PRT has short-term stability of 5 mK, and an immersion requirement of less than 153 mm (6 in) at 700 °C.

The 5624 is assembled in an alumina sheath that is 508 mm (20 in) long and 6.35 mm (0.25 in) in diameter. Several termination configurations can be selected to match different thermometer readouts. Each 5624 comes with a NIST-traceable, NVLAP-accredited (lab code 200348-0) fixed-point calibration from 0 °C to 962 °C. That's a *fixed-point* calibration! The 5624 also comes in a protective carrying case.

Specifications

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

[†]Includes calibration and 100 hr drift

Ordering Information

5624-20-X Probe, 1000 °C, 10 ohm PRT, 6.35 mm x 508 mm (0.25 in x 20 in), (includes 2609 case)

X = termination. Specify "A" (INFO-CON for 914X), "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "I" (INFO-CON for 1521 or 1522), "J" (banana plugs), "L" (mini spade lugs), "M" (mini banana plugs), "P" (INFO-CON for 1523 or 1524), or "S" (spade lugs).

1913-6 Cal, SPRT by Fixed Point, 0 °C to 962 °C

2609 Case, PRT, Plastic