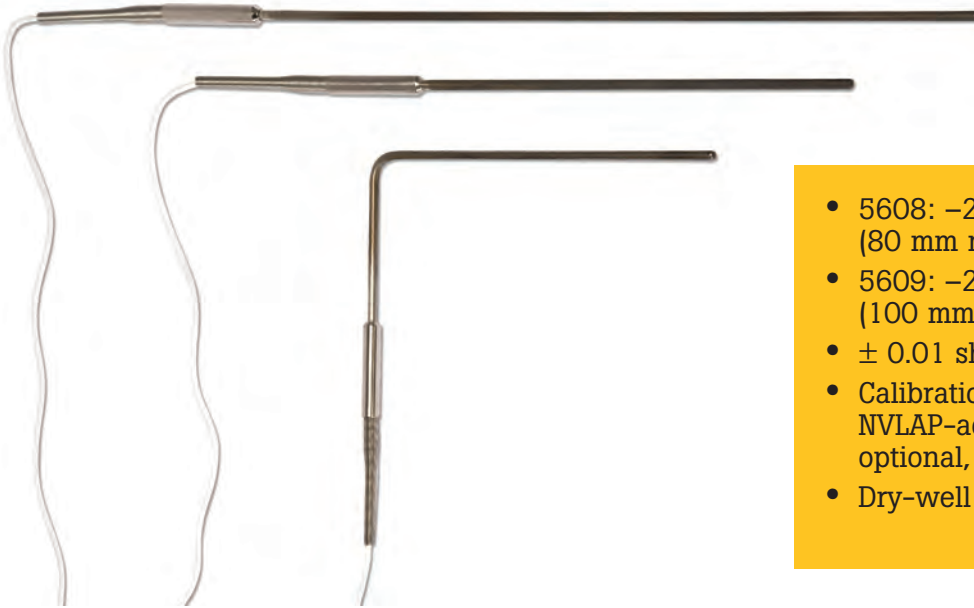


Technical Data



- 5608: -200 °C to 500 °C
(80 mm minimum immersion)
- 5609: -200 °C to 670 °C
(100 mm minimum immersion)
- ± 0.01 short-term stability
- Calibration not included,
NVLAP-accredited calibration
optional, lab code 200348-0
- Dry-well reference with 90 ° bend

Specifications	
Temperature range	5608: -200 °C to 500 °C 5609: -200 °C to 670 °C
Nominal resistance at 0.01 °C	100 Ω ± 0.5 Ω
Temperature coefficient	0.0039250 Ω/Ω/°C
Accuracy^[1]	See footnote
Short-term repeatability^[2]	± 0.01 °C at 0.010 °C ± 0.02 °C at max temp
Drift^[3]	± 0.01 °C at 0.010 °C ± 0.02 °C at max temp
Hysteresis	± 0.01 °C maximum
Sensor length	30 mm ± 5 mm (1.2 in ± 0.2 in)
Sensor location	3 mm ± 1 mm from tip (0.1 in ± 0.1 in)
Sheath material	Inconel™ 600
Minimum insulation resistance	5608: 500 MΩ at 23 °C, 20 MΩ at 500 °C 5609: 500 MΩ at 23 °C, 10 MΩ at 670 °C
Transition junction dimensions	71 mm x 12.5 mm (2.8 in x 0.49 in)
Minimum immersion length^[4] (<5 mK error)	5608: 80 mm (3.1 in) 5609: 100 mm (3.9 in)
Maximum immersion length	305 mm (12 in)
Response time^[5]	5608: 9 seconds typical 5609: 12 seconds typical
Self heating (in 0 °C bath)	5608: 75 mW/°C 5609: 50 mW/°C
Lead-wire cable type	Teflon,™ 24 AWG
Lead-wire length	1.8 m (6 ft)
Lead-wire temperature range	-50 °C to 250 °C
Calibration	Calibration not included; NVLAP-accredited calibration optional, lab code 200348-0. Please see calibration uncertainty table and its explanation of changeable uncertainties.

^[1]"Accuracy" is a difficult term when used to describe a resistance thermometer. The simplest way to derive basic "accuracy" is to combine the probe drift specification and calibration uncertainty with readout accuracy at a given temperature.

^[2]Three thermal cycles from min to max temp, includes hysteresis, 99.9 % confidence

^[3]After 100 hours at max temp, 99.9 % confidence

^[4]Per ASTM E 644

Calibration Uncertainty for optional calibrations

	1922	1923	1924
-197 °C	0.010 °C	0.025 °C	0.025 °C
-38 °C	0.009 °C	0.025 °C	0.025 °C
0 °C	0.009 °C	0.025 °C	0.025 °C
157 °C	0.014 °C	0.030 °C	0.045 °C
232 °C	0.016 °C	0.030 °C	0.045 °C
420 °C	0.025 °C†	0.035 °C	0.045 °C
660 °C	n/a	0.050 °C	0.050 °C

Note: Uncertainties depend on lab practices, available information and equipment. A selection of calibrations are available to meet customer needs. 1930 calibrations are for complete thermometer systems. 1923 and 1924 calibrations are for PRTs only. As of 2008, model 1923 and 1930 calibrations are accredited. 1924 calibrations have not yet been accredited. Lab code 200348-0

†1922-4-R uncertainties are ± 0.025 °C at 500 °C.

Ordering Information

5608-9-X	Secondary Reference PRT, 9 in x 1/8 in, -200 to 500 °C
5608-12-X	Secondary Reference PRT, 12 in x 1/8 in, -200 to 500 °C
5609-12-X	Secondary Reference PRT, 12 in x 1/4 in, -200 to 670 °C
5609-15-X	Secondary Reference PRT, 15 in x 1/4 in, -200 to 670 °C
5609-20-X	Secondary Reference PRT, 20 in x 1/4 in, -200 to 670 °C
5609-300-X	Secondary Reference PRT, 300 mm x 6 mm, -200 to 670 °C
5609-400-X	Secondary Reference PRT, 400 mm x 6 mm, -200 to 670 °C
5609-500-X	Secondary Reference PRT, 500 mm x 6 mm, -200 to 670 °C
5609-9BND	Secondary Reference PRT, 15 in x 1/4 in, 9 in bend, -200 °C to 670 °C, (optional calibration: 1924-4-7 only)
1922-4-R	PRT Calibration, -200 °C to 500 °C, NVLAP Accredited
1923-4-7	PRT Calibration, -200 °C to 660 °C, NVLAP Accredited
1924-4-7	PRT Calibration, -200 °C to 660 °C, NIST-traceable
1930	Precision Digital Thermometer System Calibration by Comparison, NVLAP-accredited, lab code 200348-0
2601	Plastic PRT Case, for models ending -9, -12, and -300
2609	Plastic PRT Case, for models ending -15, -20, -400, and -500

X = termination. Specify "B" (bare wire), "D" (5-pin DIN for Tweener Thermometers), "G" (gold pins), "I" (INFO-CON for 1521 or 1522 Handheld Thermometers), "J" (banana plugs), "L" (mini

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