

Secondary Standard RTD Probe—0.188”



0.188” Diameter
High Accuracy Calibrations
Single Elements
316 Stainless Steel Sheath

Custom Designs Available with:
• Degree Specific Case Bends

The **Secondary Standard RTD Probe—0.188”** is a Secondary Standard Platinum Thermometers (SSPRT). They are ruggedized versions of Standard Platinum Resistance Thermometers (SPRT). They provide accuracy approaching that of the SPRTs in a more robust package that allows for accurate in the lab or in the field temperature calibrations.

The 0.188” diameter secondary standards are an excellent choice for liquid bath comparison calibrations, they are optimized for use in hot block application where minimizing stem conduction errors are critical.

High purity (99.999%) pure, larger diameter sensing wire gives excellent short term repeatability. Hermetically sealed into an Inconel™ 600 sheath for excellent long term stability. NIST Traceable comparison calibration.



FEATURES

- Temperature Range:
 - » -200°C (-328°F) To 420°C (788°F)
- Stainless Steel Sheath
- Elements, Single:
 - » Platinum
- FEP Jacketed Cable
- Calibration Report and Table Included

APPLICATIONS

- Process
- Pharmaceutical
- Medical
- Aerospace / Defense

dimensions



'Y' = Leadwire/Cable Length
'L' = Sheath Length

Secondary Standard RTD Probe–0.188”

performance specifications

	6.0" – Model 633F	9.0" – Model 633F
Temperature Range	-200°C to 420°C	-200°C to 420°C
Nominal Resistance at .01°C	100 ±0.545Ω	100 ±0.545Ω
Temperature Coefficient	0.003925 ±0.000020 Ω/Ω/°C	0.003925 ±0.000020 Ω/Ω/°C
Short-term Repeatability ^[1]	±0.007°C at 0.010°C	±0.007°C at 0.010°C
Drift ^[2]	±0.007°C at 0.01°C	±0.007°C at 0.01°C
Hysteresis	±0.01°C Maximum	±0.01°C Maximum
Sensor Length	38.1 mm (1.5")	38.1 mm (1.5")
Sensor Location	9.5 ±3.2 mm from tip (0.375 ±.125")	9.5 ±3.2 mm from tip (0.375 ±.125")
Sheath Dimensions	152.40 x 4.78 mm (6.00" x 0.188")	228.60 x 4.78 mm (9.00" x 0.188")
Sheath Diameter Tolerance	---	---
Sheath Material	Inconel 600	Inconel 600
Minimum Insulation Resistance	500 Megohms at 23°C 100 Megohms at 300°C	500 Megohms at 23°C 100 Megohms at 420°C
Transition Junction Temperature Range ^[3]	-50°C to 150°C	-50°C to 150°C
Transition Junction Dimensions	70.61 x 10.62 mm (2.78" x 0.418")	70.61 x 10.62 mm (2.78" x 0.418")
Minimum Immersion Length	102 mm (4.0")	102 mm (4.0")
Response Time ^[4]	6 seconds typical	6 seconds typical
Self Heating (in 0°C bath)	50 mW/°C	50 mW/°C
Lead Wire Cable Type	FEP jacketed cable, TFE insulated conductors, 24 AWG stranded, silver plated copper	FEP jacketed cable, TFE insulated conductors, 24 AWG stranded, silver plated copper
Lead Wire Length	182.9 +15.24/-0.0 cm (72.0 +6.0/-0.0")	182.9 +15.24/-0.0 cm (72.0 +6.0/-0.0")
Lead Wire Temperature Range	-50°C to 150°C	-50°C to 150°C
Calibration	NIST-traceable calibration	NIST-traceable calibration

- [1] Three thermal cycles from min. to max. temp., including hysteresis
 [2] After 100 hours at max. temp. 99.8% confidence.
 [3] Temperatures outside this range will cause irreparable damage.
 [4] Per ASTM E 644

**9 Inch Sensor Length,
 Calibration Temperatures:**
 -196°C, -78°C, -38°C, 0.01°C,
 156°C, 231°C and 300°C
 Report: Includes calibration report and table

**6 Inch Sensor Length,
 Calibration Temperatures:**
 -196°C, -78°C, -38°C, 0.01°C,
 156°C, 231°C and 420°C
 Report: Includes calibration report and table

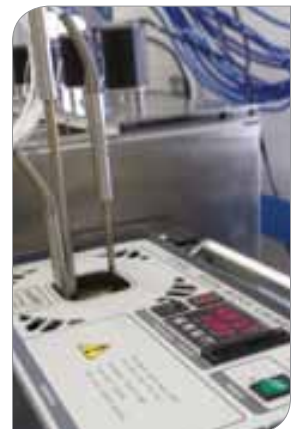
Calibration Uncertainty	
Temperature °C	Expanded Uncertainty °C (k=2)
-196	.012
-78	.012
-38	.011
0.01	.009
156	.011
231	.013
420	.021

Calibration Accuracy	
Temperature °C	Accuracy °C (k=2)
-200	± .012
0	± .011
420	± .028

ordering info

Secondary Standard RTD Probe–0.188”

Model	Temperature Range		
633F	Full: -200 to 420°C (-328 to 788°F)		
Model	Element	Resistance	Temperature Coefficient
P2H	Platinum	100 Ohm	.003925
Model	'L' Sheath Length		
6	6.0" Sheath Length		
9	9.0" Sheath Length		
Model	Leadwire Configuration	Color Code	
4S	Four Wire, Single	Red/Red/White/White	
Model	'Y' Leadwire Length		
72	72.0" Leadwire		



联系方式



深圳市亿为测控电子有限公司
 Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

广东省深圳市南山区创业路怡海广场东座2407 邮编：518000
 电话：+86 755 2641 9890 传真：+86 755 2641 9680
 电子邮箱：sales@bill-well.com