

Product Selection Guide

Temperature Sensors and Accessories

Thermocouples (Series 100)

-196°C to 1180°C

Special Limits of Error

Type J, K, T, E

Fixed Length, Spring-Loaded, Variable Immersion Hazardous Location Approvals



RTDs (Series 200/300)

Series 200: -196°C to 500°C / \pm 0.13 or \pm 0.26°C @ 0°C Series 300: -50°C to 200°C / \pm 0.26°C @ 0°C Fixed Length, Spring-Loaded, Variable Immersion Hazardous Location Approvals



Sanitary Sensors (Series S)

-50°C to 200°C

RTDs: $\pm\,0.13$ or $\pm\,0.26^{\circ}\text{C}$ @ 0°C Thermocouples: Special Limits of Error

3A / ASME BPE Compliant



Miniature RTDs (Series A)

-196°C to 200°C / ± 0.13°C @ 0°C

-50°C to 200°C / ± 0.26°C @ 0°C

0.080, 0.125, 0.188 and 0.250 Inch Diameters 100% Waterproof — Fully Immersible in Liquid



Surface Sensors (Series B)

-50°C to 200°C

RTDs: ± 0.26°C @ 0°C

Thermocouples: Special Limits of Error



Air Temp Sensors (Series D)

-46°C to 260°C

± 0.26°C @ 0°C

Room and Duct Air Measurement
Averaging, Multipoint and Wall Mount





Field Adjustable Length (Series E)

-50°C to 200°C

RTDs: ± 0.13°C or ± 0.26°C @ 0°C
Thermocouples: Special Limits of Error
Cut-to-Length, Twist-to-Length and Segmented
Spring-Loaded and Variable Immersion

In Stock for Quick Shipment



Autoclave Sensors

(SAC/SAL/SAH/SAX)

-50°C to 200°C

 $\pm~0.13^{\circ}\text{C}$ or $\pm~0.26^{\circ}\text{C}$ @ 0°C

Standard and Heavy-Duty Chamber and Load Probes 100% Waterproof — Fully Immersible in Liquid



In-Line Non-Intrusive (SNI/SNR/SNS)

-50°C to 200°C

RTDs: ±0.13°C or ±0.26°C @ 0°C Thermocouples: Special Limits of Error

3A / ASME BPE Compliant



Transmitters and Indicators

Digital Programmable, Analog, In-Line M12 HART and Fieldbus Loop and Battery Powered



Thermowells

Threaded/Flanged/Socket Weld/Van Stone/ Heavy Duty Weld-In/Sanitary Elbow (SWE)/ Sanitary Straight (SWT)/Sanitary Ingold (SPA/SPS)

Variety of Materials, Coatings, Certifications and Custom Designs Available



Quick Connect Sensors

User Friendly 4 pin M12 Connectors IP67 when Mated Available on Series 200/300/S PVC and FEP Cordsets (C01/C02/C03) In-Line Transmitter Option (T12)





Laboratory Thermometers

-196°C to 500°C

Secondary Reference PRTs and Field Use Models 0.125, 0.188 and 0.250 Inch Diameters Lengths up to 24"

Connectors Available for Most Readouts



Accredited Calibration Services

-196°C to 500°C
Uncertainties ± 3.4 mK to ± 25 mK
5 Day Turnaround
PRT and System Calibrations



RTDology® Temperature Training

Free Online Training Custom Training Topics Technical Papers Phone Support On-site Support



Selection and Application
How to Choose an RTD with Confidence



RTDolor

Custom Engineered Solutions

We can assist you in finding or creating the right product for your specific needs.

Custom Built Solutions
Minor or Major Modifications
In-house Design, Engineering and Manufacturing



Common Applications

Test and Measurement Metrology OEM

Process Control/Monitoring/Safety

- Sterilization/SIP/CIP/Autoclave
- Pasteurization/Retort
- Refining/Distillation/Condensing/Cooling
- Steam/Feed Water/Cooling Liquid/Effluent
- Annealing/Drying/Oxidizing/Flue Gas
- Bioreactors/Freeze Dryers
- Boilers/Furnaces/Ovens
- Pipes/Tanks/Cylinders/Reactors
- Turbines/Bearings
- Storage—Refrigerator/Freezer/Cryogenic
- Custody Transfer
- Waterproof/Underwater/Cooling Ponds

Measurement Confidence

Burns Engineering has temperature measurement solutions for all your Process, OEM, Test & Measurement and Metrology needs. Since our founding in 1960, product quality, customer service and innovative engineering have been hallmarks of our business.

Your business deserves temperature measurement solutions that you can depend on . . . at Burns, your measurement is our mission.