



## Burns 12001 Style Secondary Standard PRT by Comparison to SPRT \*

5 Point Calibration								3 Point Calibration			
Part No. 18629-15		Part No. 18629-16		Part No. 18629-17		Part No. 18629-18		Part No. 18629-37		Part No. 18629-38	
Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)
-196	.024	-196	.024	-196	.024	-196	.024	0.01	.010	0.01	.010
-38	.011	-38	.011	-38	.011	-38	.011	200	.018	200	.018
.01	.010	0.01	.010	0.01	.010	0.01	.010	300	.029	420	.029
50	.018	100	.018	200	.018	200	.018	—	—	—	—
100	.018	200	.018	300	.029	420	.029	—	—	—	—

## Any Industrial PRT by Comparison to SPRT †

4 Point Calibration															
Part No. 18630-15		Part No. 18630-16		Part No. 18630-25		Part No. 18630-18		Part No. 18630-17		Part No. 18630-26		Part No. 18630-27		Part No. 18630-28	
Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)
-196	.025	-196	.025	-38	.025	-196	.025	-196	.025	-38	.025	-38	.025	-38	.025
0	.025	0	.025	0	.025	0	.025	0	.025	0	.025	0	.025	0	.025
50	.025	100	.025	50	.025	200	.025	200	.025	100	.025	200	.025	200	.025
100	.025	200	.025	100	.025	420	.050	300	.050	200	.025	300	.050	420	.050

3 Point Calibration															
Part No. 18630-35		Part No. 18630-36		Part No. 18630-37		Part No. 18630-38									
Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)								
0	.025	0	.025	0	.025	0	.025								
50	.025	100	.025	200	.025	200	.025								
100	.025	200	.025	300	.050	420	.050								

## Digital Thermometer with PRT System by Comparison to SPRT ^

5 Point Calibration								3 Point Calibration							
Part No. 21330-15		Part No. 21330-16		Part No. 21330-17		Part No. 21330-18		Part No. 21330-35		Part No. 21330-36		Part No. 21330-37		Part No. 21330-38	
Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)	Calibration Points Taken (°C)	Expected Uncertainty k=2 (°C)
-196	.024	-196	.024	-196	.024	-196	.024	0.01	.010	.01	.010	.01	.010	.01	.010
-38	.011	-38	.011	-38	.011	-38	.011	50	.018	100	.018	200	.018	200	.018
.01	.010	.01	.010	.01	.010	0.01	.010	100	.018	200	.018	300	.029	420	.029
50	.018	100	.018	200	.018	200	.018	—	—	—	—	—	—	—	—
100	.018	200	.018	300	.029	420	.029	—	—	—	—	—	—	—	—

\* † ^ Notes

- Sensor performance effects the uncertainty that is attainable during calibration. The uncertainty values listed above are based on the performance of the Burns Engineering secondary standard style 12001 Series RTD\*, 200 Series Industrial RTD†, and 12001 Series RTD with a high quality digital readout^A. The actual uncertainty for the calibration performed on your sensor may be different than the values listed above. See Burns Engineering Scope of Accreditation under NVLAP Lab Code 200706-0 for best uncertainty.
- System calibrations include as found system data at all calibration points listed, sensor calibration and input of new sensor coefficients into the digital readout, and as left system data at all calibration points listed.^A