Calibration Ordering Information

Our NVLAP Lab Code 200502-0 (National Voluntary Laboratory Accreditation Program) Accredited Metrology Laboratory provides comparison temperature calibrations from -196 °C to 1450 °C [-321 °F to 2642 °F] on the International Temperature Scale of 1990 (ITS-90) for temperature sensors and instruments.

Pyromation's laboratory managerial staff and technical team have documented education, training, technical knowledge and experience to precisely perform their assigned functions. The laboratory's test enviornment is constantly monitored and controlled to maintain all required conditions, while access is strictly defined and controlled.

Our Laboratory equipment includes fluidized baths and tube furnaces, standard platinum resistance thermometers, and type "B" and "S" thermocouples. All standards and calibrations are traceable to the National Institute of Standards and Technology (NIST), or have been derived from accepted values of natural physical constants, or by the ratio of self calibration. Our reports are complete and include "as found" and "as left" data when appropriate. Note: Our quality system meets or exceeds the requirements for NIST Handbook 150:2006, ISO 9001:2000, ISO 10012-1:1992(E), ANSI/NCSL Z540-1-1994, and MIL-STD-45662A.

ORDER CODES

Example Order Numbers:

1	2	3		4		5
CAL	**(100, 200, 300)**	**F**	**-**	**PTD**	**-**	**TBL**

1 Standard Calibrations

CODE	DESCRIPTION
CAL	**Sensor Calibration** - All sensors of line item calibrated to specified temperatures.
LOT	**Lot Calibration - Beginning and End** - (BE) - One sample from the beginning and the end of the lot will be tested at specified temperatures.
LOP[1]	**Loop Calibration -** One instrument and one sensor will be tested together at specified temperatures.

[1] Note: Additional length may be required for loop calibrations.

2 Calibration Temperatures: Specified Required Calibration Points

3 Temperature Scale

CODE	DESCRIPTION
C	Degrees Celsius
F	Degrees Fahrenheit

4 Tagging Options

CODE	DESCRIPTION
PTD	Calibration Detail, Paper Tag
STD	Calibration Detail, Stainless Tag
ATD	Calibration Detail, Aluminum Tag
PTA	Tag all sensors with Beginning and End Calibration, Paper Tag

5 Custom Table Options

CODE	DESCRIPTION
TBL	Table in 1 degree increments
TBL (0.1)	Table in 0.1 degree increments
TBL (CVD)	Callendar Van Dusen Coefficients

1A Calibrations Per AMS 2750

CODE	DESCRIPTION	ASTM E230 Tolerances
CAL-AMS-TUS	**Temperature Uniformity Survey Calibration** - All sensors of line item calibrated to specified temperatures.	± 2.2 °C [± 4 °F] or ± 0.75%
CAL-AMS-SAT	**System Accuracy Test Calibration** - All sensors of line item calibrated to specified temperatures.	(J, K, T, E, N) ± 1.1 °C [± 2 °F] or ± 0.4% (R,S) ± 0.6 °C [± 1 °F] or ± 0.1% (B) ± 0.6 °C [± 1 °F] or ± 0.25%
CAL-AMS-CRM	**Control, Recording & Monitoring Calibration -** All sensors of line item calibrated to specified temperatures.	Class 1 & 2: ± 1.1 °C [± 2 °F] or ± 0.4% Class 3 to 6: ± 2.2 °C [± 4 °F] or ± 0.75%
CAL-AMS-L	**Load Calibration** - All sensors of line item calibrated to specified temperatures.	± 2.2 °C [± 4 °F] or ± 0.75%

1B Lot Calibrations Per AMS 2750

CODE	DESCRIPTION	Max Lot Length	ASTM E230 Tolerances	Allowable Delta Limits[1]
BEG-AMS-TUS	**Temperature Uniformity Survey Lot Calibration** - Beginning - One sample from the beginning of the lot will be tested at specified temperatures.	1000 ft	± 2.2 °C [± 4 °F] or ± 0.75%	N/A
LOT-AMS-TUS	**Temperature Uniformity Survey Lot Calibration** - Beginning and End - One sample from the beginning and the end of the lot will be tested at specified temperatures.	5000 ft	± 2.2 °C [± 4 °F] or ± 0.75%	± 1.1 °C [± 2 °F]
BEG-AMS-SAT	**System Accuracy Test Lot Calibration** - One sample from the beginning of the lot will be tested at specified temperatures.	1000 ft	(J, K, T, E, N) ± 1.1 °C [± 2 °F] or ± 0.4% (R,S) ± 0.6 °C [± 1 °F] or ± 0.1% (B) ± 0.6 °C [± 1 °F] or ± 0.25%	N/A
LOT-AMS-SAT	**System Accuracy Test Lot Calibration** - One sample from the beginning and the end of the lot will be tested at specified temperatures.	5000 ft	(J, K, T, E, N) ± 1.1 °C [± 2 °F] or ± 0.4% (R,S) ± 0.6 °C [± 1 °F] or ± 0.1% (B) ± 0.6 °C [± 1 °F] or ± 0.25%	± 1.1 °C [± 2 °F]
BEG-AMS-CRM	**Control, Recording & Monitoring Lot Calibration -** One sample from the beginning of the lot will be tested at specified temperatures.	1000 ft	Class 1 & 2: ± 1.1 °C [± 2 °F] or ± 0.4% Class 3 to 6: ± 2.2 °C [± 4 °F] or ± 0.75%	N/A
LOT-AMS-CRM	**Control, Recording & Monitoring Lot Calibration -** One sample from the beginning and the end of the lot will be tested at specified temperatures.	5000 ft	Class 1 & 2: ± 1.1 °C [± 2 °F] or ± 0.4% Class 3 to 6: ± 2.2 °C [± 4 °F] or ± 0.75%	± 1.1 °C [± 2 °F]
BEG-AMS-L	**Load Lot Calibration** - One sample from the beginning of the lot will be tested at specified temperatures.	1000 ft	± 2.2 °C [± 4 °F] or ± 0.75%	N/A
LOT-AMS-L	**Load Lot Calibration** - One sample from the beginning and the end of the lot will be tested at specified temperatures.	5000 ft	± 2.2 °C [± 4 °F] or ± 0.75%	± 1.1 °C [± 2 °F]

[1] Only applies to lengths greater than 1000 ft

Minimum Sensor Length Requirements for Temperature Calibrations

-196 °C	-75 °C	(-40 to 0) °C	(0 to 100) °C	(40 to 215) °C	(200 to 500) °C	(425 to 1204) °C	(800 to 1450) °C
[-321 °F]	[-103 °F]	[-40 to 32] °F	[32 to 212] °F	[104 to 420] °F	[392 to 932] °F	[800 to 2200] °F	[1472 to 2642] °F
12 Inch	12 Inch	6 Inch	6 Inch	6 Inch	18 Inch	18 Inch	30 Inch