Calibration
Certificate No. 1750.01

Calibration complies with ISO/IEC 17025, ANSI/NCSL Z540-1, and 9001

Cert. No.: 4184-49522

Traceable® Certificate of Calibration for Jumbo Humid./Temp. Meter

Instrument Identification:

Model: 4184 S/N: 1301213 Manufacturer: Control Company

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Calibration Bath TC-231	A79341		
Thermistor Module	A17118	2/13/14	1000332071
Temperature Probe	3039	2/20/14	6-B48Z9-1-1
Chilled Mirror Hygrometer	31874/H2048MCR	5/24/13	10100
Digital Thermometer	90969500	9/17/13	4000-5608482

Certificate Information:

Technician: 104 Procedure: CAL-17 Cal Date: 2/27/13 **Cal Due: 2/27/15**

Test Conditions: 24.0°C 35.0 %RH 1015 mBar

Calibration Data: (New Instrument)

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
Probe °C		N.A.		0.000	0	Y	-1	1	0.580	1.7:1
°C		N.A.		24.035	24	Y	23	25	0.610	1.6:1
%RH		N.A.		36.060	37	Y	32	40	1.100	3.6:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2; Min = As Left Nominal(Rounded) - Tolerance; Max = As Left Nominal(Rounded) + Tolerance; Date=MM/DD/YY

Nicol Rodriguez, Quality Manager

Aaron Judice, Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Jumbo Humid./Temp. Meter should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Jumbo Humid./Temp. Meters change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

This device was calibrated using a single test point. Should additional test points be required, please contact Control Company for factory calibration and re-certification traceable to National Institute of Standards and Technology.

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Control Company is an ISO 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.
Control Company is ISO 9001:2008 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-2006-AQ-HOU-RvA.
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).