



SOUTHWEST RESEARCH INSTITUTE®

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Certificate of Calibration

0972-01

Submitted By: DIV20	Work Order: 303067082
Address: B57	Date Issued: Dec 29, 2005
Contact: DON BANNON	Calibration Date: Dec 29, 2005
Manufacturer Model: VAISALA HMP235	*Calibration Due: Dec 29, 2006
Description: TEMPERATURE/HUMIDITY TRANSMITTER	Calibration Location: Bldg. 64
Serial No: W1840062	Environment: Temp. 72.0°F Hum. 40 %RH
Asset No: 008769	**Data Type: FOUND-LEFT
Procedure: TEMPERATURE/HUMIDITY, MAY/03	

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 1999, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. **Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of k=2 to approximate a 95% confidence level.

Remarks: None

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
006404	9806123	THUNDER SCIENTIFIC	2500	HUMIDITY GENERATOR	Jun 13, 06

Reviewed by: blt () jrg () pwc (x) wgh ()
Metrology Technician

m:\a2la1.rpt Rev date August 15, 2005

Measurements by Mike Young
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303067082	Mfr.	VAISALA	Technician:	msy
Asset No.	008769	Model	HMP235 -20 to 180 C		
Serial No.	W1840062	Type.	Temp/RH Transmitter	Cal Date:	29-Dec-05
Remarks: Temperature accuracy is based on worst case error. Manufacturer %RH Limits are +/-1% 0 to 90%RH. CALIBRATED 25 to 65 °C					

Function/Range	Test Point	TI Reading		Difference	+/-Limit	+/-Uncertainty	Found/Left
% RH	% RH	mAmp	% RH	% RH	% RH	% RH	Result
0-100	20.02	7.109	19.43	-0.59	1.0	0.63	Pass
	40.03	10.296	39.35	-0.68	1.0	0.63	Pass
	59.89	13.437	58.98	-0.91	1.0	0.63	Pass
	70.00	15.053	69.08	-0.92	1.0	0.63	Pass
Degrees	°C	mAmp	°C	°C	°C	°C	
	25.00	7.635	25.44	0.44	0.60	0.035	Pass
	44.97	9.151	44.39	-0.58	0.60	0.063	Pass
	64.82	10.760	64.50	-0.32	0.60	0.091	Pass

END OF REPORT