

Report #: 111110-C4650041-RH **RMA #:** 95-86432

Calibration Date: Nov-11-2010

Model #: HMP45A

Serial #: C4650041

Instrument Type: Humidity Transmitter

Ch 1: 0...1 V, 0...100 %RH

Calibration Procedure: 11603100

Instrument Range: 0.8 to 100%, RH

Ch 2: 0...1 V, -40...+60 °C, T

Recommended Calibration Due Date: Nov-11-2011

Instrument Range: -39.2 to +60 °C, T

Customer: NOAA

City, State: SEATTLE, WA

This unit was calibrated by adjusting its reading at 0% against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement.

Calibration Data (As Found)				
Out of Tolerance: YES				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.27	21.20	-0.07	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	-0.40	-0.43	2.00	0.50
11.06	10.70	-0.36	2.00	0.92
32.26	31.60	-0.66	2.00	1.01
73.93	72.50	-1.43	2.00	1.02
Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.54	21.50	-0.04	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50
11.22	11.30	0.08	2.00	0.92
32.28	32.30	0.02	2.00	1.01
74.90	74.90	0.00	2.00	1.02

Problem Noted: None

Action Taken: The unit was adjusted

The results of this calibration are related only to the items being calibrated at the time of calibration, and are traceable to the National Institute of Standards and Technology. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 2A			
Model Number	Serial Number	Calibration Date	Due Date
DMP248	Z3230004	Sep. 21, 2010	Sep. 21, 2011
Fluke 45	7405019	Oct. 7, 2009	Oct. 7, 2011
HMK13B	S4840001	Aug. 20, 2010	Feb. 20, 2011
HMT333	E0230027	Aug. 12, 2010	Nov. 12, 2010
HMT333	E0230028	Aug. 12, 2010	Nov. 12, 2010
HMI41/HMP45	S0720005	Jun. 10, 2010	Dec. 10, 2010

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	50.20 %RH

Approved By 


Technical Operator
J. Gary Francisque



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HMP45A
serial no. CA6500

www.dell

Support