



### Application Notes

Rev. 01/27/06

BAPI's standard product accuracy is either  $\pm 3.0\%$  or  $\pm 2.0\%$  relative humidity. BAPI can provide a Sensor Certification for each transmitter that corrects each sensor and transmitter assembly to  $\pm 1\%$  relative humidity as shown in the figure below. Each certified sensor/transmitter pair will ship with a unique certification. BAPI retains certification data for future reference.

Each sensor is placed into a precision humidity chamber that can hold a relative humidity condition to within  $\pm 0.5\%RH$ . An independent instrument, with an annual NIST calibration accurate to  $\pm 0.5\%RH$ , samples the inside of the chamber to verify the humidity reading. The humidity transmitter's output is recorded at each humidity certification point. BAPI normally tests at 25%, 50% and 75% relative humidity at one customer specified temperature. BAPI will test at any relative humidity and temperature that you specify. BAPI's humidity chamber has temperature test limits of 0 to 70°C and humidity test limits of 15%RH to 95%RH.

If you require the humidity reading to be certified at more than one temperature, please contact your BAPI representative for pricing. Please allow additional lead time when ordering certified units. If you have any questions about the certification documents, please contact your BAPI representative.

Customer		Order #	Your Order #	CalDate
Your Company Name				2/17/2006
Serial #	BCC146	BA/H200-D-EU		CalDue
				5/18/2006
Certificate #	BCEC1226	Cal. Procedure	HumidityCalibration.pdf	Calibrated By
				Tim VanBlarcom

  

Environmental Conditions			
Humidity %RH	38	Temperature °F	77
		Pressure	1016 Pascals

  

Calibration Standards		
BAPI ID#	Description	Uncertainty
BAPI0003	Humidity Chamber	1%RH
BAPI0004	Humidity Reference	.5%RH
BAPI0116	Digital Multimeter	.001%
BAPI0016	SPRT	.02°C
BAPI0015	Digital Thermometer	.02°C

  

Results							
Test	Units	Reference	Uncertainty	As Found	Difference	As Left	Difference
20	%RH	20	.5	18.83	-1.17	18.83	-1.17
50	%RH	50	.5	49.72	-.28	49.72	-.28
80	%RH	80	.5	80.72	.72	80.72	.72

  

Notes

  

This notification serves to certify that the unit described above has been inspected and tested in accordance with specifications published by Building Automation Products Inc.

The accuracy and calibration of this instrument are traceable through reference standards that are compared, at planned intervals, to national standards maintained by the National Institute of Standards and Technology (NIST), by comparison to natural physical constants.

The measurement standards which support this calibration are calibrated on a schedule to maintain the required accuracy level.

For recalibration and recertification of this unit or for other testing or calibration services contact:

	Building Automation Products, Inc.	Phone (608) 735-4800
	750 North Royal Avenue	Fax (608) 735-4804
	Gays Mills, WI 54631	