

WeatherStation® Instrument Calibration Certificate

Model: PB200
ID: 2250048
Calibration Date: 5/14/2011
Manufacturer : Airmar Technology Corporation, Milford NH USA
Test Procedure: 96-154-02

The WeatherStation® Instrument passes testing for IPX6 heavy seas water standards (excepting units equipped with RH sensors, which meet IPX4) and the IEC 60945 standards for exposed units₁. All units are calibrated in an onsite wind tunnel₂.

Unit Test Results:

Test Performed	Logged Value	Test Requirement
0 Knot Wind	0.7	Less than 1 Knot Max
50 Knot Cal ₄	PASS	Within 2 Knots RMS
Humidity	N/A	Within ±5 % RH
Temperature ₅	22.7	Within ±1.1 °C
Pressure	1001.3	Within ±2 mBar
Rate Gyro – Dynamic ₆	N/A	Under 4 deg/sec average error
Rate Gyro – Static	N/A	Within ±40 Deg/min
Pitch	0.0	Within 1°
Roll	0.0	Within 1°

Ambient (Local) Test Conditions₃:

Humidity: 31.7 %RH
Temperature: 23.7 Deg C
Pressure: 1001.4 mBars

Equipment List

- Wind Tunnel Calibration
 - United Sensor Corp. Pitot Tube – Calibrated to NIST traceable pitot tube
 - MKS Instruments Pressure Sensor
 - BK Precision® 5491A Multimeter
- Ambient Temperature Readings (Temperature, humidity and pressure)
 - Vaisala® PTU200
- Rate Gyro Testing
 - SEI A2 Absolute encoder
 - US Digital R164 Motor Controller

- 1 – After multiple heat cycles above 65° C (149°F) wind anemometer performance may require recalibration to remain within specifications at wind speeds above 50 knots (92.6 km/h) .
- 2 – The on site wind tunnel is calibrated with a pitot tube, which in turn was calibrated with a NIST traceable pitot tube.
- 3 – Ambient conditions measured with a Vaisala PTU300. Temperature, humidity and pressure readings compared to Vaisala PTU300. The temperature, pressure and humidity readings from the Vaisala® Instruments were calibrated by Vaisala® against instruments calibrated to NIST traceable instruments.
- 4 – Units are calibrated at 50 knots with a 75 point correction curve.
- 5 – Unit temperature and humidity recorded with 4+ knots of wind present.
- 6 – Test conducted at a rate of turn of 70 degrees per second.