

## WeatherStation® Instrument Calibration Certificate

**Model:** 200WX  
**ID:** 60390327  
**Calibration Date:** 4/28/2021  
**Manufacturer:** Airmar Technology Corporation, Milford NH USA  
**Test Procedure:** 96-154-02

The WeatherStation® Instrument passes testing for IPX-6 heavy seas water standards (excepting units equipped with RH sensors, which meet IPX4) and the IEC 60945 standards for exposed units(1). All units are calibrated in an onsite wind tunnel-2(2).

### Unit Test Results:

| Test Performed         | Logged Value | Test Requirement              |
|------------------------|--------------|-------------------------------|
| 0 Knot Wind            | 0.0          | Less than 1 Knot Max          |
| Wind Cal(4)            | PASS         | Within ±2 Knots               |
| Humidity               | N/A          | Within ±5 % RH                |
| Temperature(5)         | 22.5         | Within ±1.1 °C                |
| Pressure               | 1000.4       | 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 Conditions(3):

**Humidity:** 37.7 %RH  
**Temperature:** 22.4 Deg C  
**Pressure:** 1000.7 mBars

### Equipment List:

- \* **Wind Tunnel Calibration**
  - o Dwyer Pitot Tube
  - o MKS Instruments Pressure Sensor: 220DD-00010A2B
  - o BK Precision® 5491A Multimeter
- \* **Ambient Temperature Readings (Temperature, humidity and pressure)**
  - o Vaisala® PTU200
- \* **Rate Gyro Testing**
  - o SEI A2 Absolute encoder
  - o US Digital R256 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® PTU200. Temperature, humidity and pressure readings compared to Vaisala® PTU200. 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 20 knots with a full circle multipoint calibration.
- 5 - Unit temperature and humidity recorded with 4+ knots of wind present.
- 6 - Test conducted at 70 degrees per second.