



This instrument was produced under rigorous factory production control and documented standard procedures. It was individually inspected and leak tested and the functioning of its display, backlight, buttons and firmware was verified. The accuracy of each of its primary measurements was individually calibrated and/or validated against standards traceable to the National Institute of Standards and Technology ("NIST") or other calibrated standards in accordance with the documented standard test methods detailed below. This instrument is warrantied to perform in compliance with the published specifications for the specific measurements and features of its model number including specified typical drift since its date of manufacture. (See Kestrel Limited Warranty for full warranty terms.)

# Standards Used in Testing Wind Speed:

The Kestrel Weather & Environmental Meter impeller installed in this unit was individually tested in a subsonic wind tunnel operating at approximately 300 fpm (1.5 m/s) and 1200 fpm (6.1 m/s) monitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anemometer. The Gill 1350 is calibrated regularly and is traceable to NIST with a maximum combined uncertainty of ±1.04% within the airspeed range 711.4 to 3930 fpm (3.59 to 19.93 m/s), and ±1.66% within the airspeed range 170 to 711.4 fpm (0.85 to 3.59 m/s).

#### Temperature:

Temperature response is verified in comparison with an Ametek DTI-050 Digital Temperature Indicator and STS Reference Sensor. The DTI-050 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ± 0.40C.

### **Direction / Heading**

The sensitivity of the magnetic directional sensor is verified after assembly by orienting the unit to the cardinal directions

and confirming the magnetic field output. The compass output is accurate to within ± 5 degrees as compared to a Suunto KB-14/360R G precision compass.

## **Relative Humidity:**

Relative humidity is verified in comparison with an Edgetech HT120 Humidity Transmitter. The HT120 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ±1.0%RH.

## **Barometric Pressure:**

Pressure response is verified against a Vaisala PTB210A Digital Barometer. The Vaisala Barometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ± 0.3hPa.

Approved By:

Nils Steffensen

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