



# 6500 Anemometer

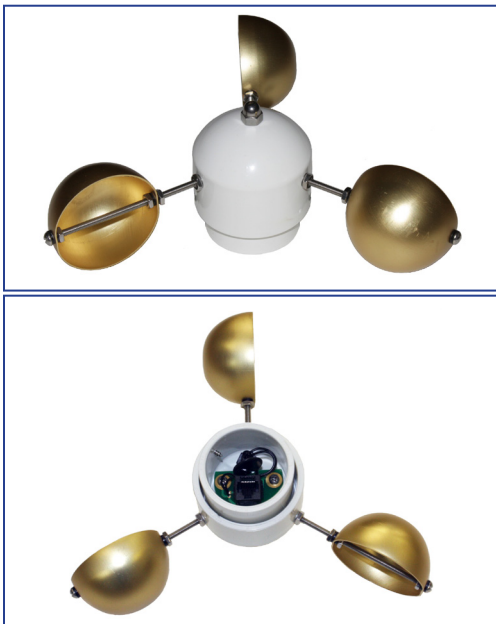
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APRS World's **6500 Anemometer** is a durable and low-cost wind speed sensor. It was originally introduced as a kit by Fascinating Electronics in 1991. APRS World purchased the design in 2007 and has continued to manufacture and sell thousands. The anemometer is built using a high quality ball bearing, stainless steel hardware, UV stable plastic, and durable anodized aluminum hemispherical cups. The cups are weight matched. The anemometer is assembled in the USA with components predominately made in the USA.

The 6500 Anemometer mounts onto 1.5" schedule 40 PVC pipe using a stainless steel set screw. The wiring is protected inside the pipe and connects with a standard RJ-45 connector. This unique mounting arrangement allows for easy mounting in the field, lab, or school yard. The only moving part on the anemometer is a common ball bearing (RA4ZZ EMQ) which is available from any bearing supplier. This bearing typically lasts 3 years in high winds and icing environments, or 10+ years in less extreme areas.

This anemometer is not perfect for all applications. It has a relatively high starting speed (1 m/s or 2 MPH) and a relatively low rated accuracy. We do not recommend it for wind site assessment applications. It is ideal schools, home owners, and mechanically demanding environments. If you need a higher performance anemometer, we recommend you consider our #40R anemometer. A sample of this anemometer was wind tunnel calibrated in 2006. The anemometer calibration summary is available.



| Performance         |   |
|---------------------|---|
| Accuracy            | Within 0.45 m/s (1 MPH) for the range 5 m/s to 25 m/s (11 MPH to 55 MPH)  |
| Callibration        | Not individually calibrated.  |
| Output Signal       |   |
| Sensor Type         | Reed switch, dry contact. Frequency proportional to cup rotational speed. |
| Transfer Function   | $m/s = (Hz * 0.786) + 0.948$ ; $MPH = (Hz * 1.758) + 2.121$               |
| Protection          | Metal Oxide Varistor (MOV) between terminals                              |
| Terminals           | Reed switch connected between pins 1 and 4.                               |
| Physical Properties |   |
| Cup Diameter        | 64 mm (2.5 inches)  |
| Rotor Diameter      | 254 mm (10 inches)  |
| Weight              | 264 grams (9.3 ounces)  |
| Mounting and Wiring |   |
| Mounts On           | 1.5" PVC pipe; 48.5 mm (1.9 inch) actual OD                               |
| Mounts Using        | Set screw   |
| Wiring Terminals    | Integrated RJ-45 female connector   |

### 6500 Anemometer

Part Number: APRS6500  
Shipping Weight: 0.5 kg / 1.125 lb  
RoHS: compliant



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