

The RainWise Multi-vane Wind Speed *and* Wind Direction Sensor

The RainWise multivane wind speed and wind direction sensor consists of a multi-vane rotor and wind direction vane mounted on a anodized aluminum support tube.

RainWise modeled the multi-vane rotor after a similar design that was used to measure the wind speed of 231 miles per hour on top of Mount Washington. Since it was introduced, some eighteen years ago, we have sold over 15,000 of them. It is the most rugged and reliable method of measuring wind speed and direction that we know of. The RainWise multi-vane anemometer has been wind tunnel tested at the Stennis Space Center at speeds of 140 MPH. The accuracy is traceable to NIST.

The **WSR** operates with an optical switch. The pulses generated each revolution are counted over a known period of time and this output is the wind speed. Heaters are an available option for the WSR. For battery/solar powered systems the WSR is also available with a dry reed switch output.

The **WDV** consists of two magnets positioned on the vane at an angle of 140 degrees. These magnets actuate 9 dry reed switches mounted below them, producing 36 discreet nine-bit binary outputs. This information is placed into a shift register and sent down the connecting cable in a serial string. The direction sensor is programmed to indicate "630" if there is any malfunction in the system.

Both the WSR and the WDV are available separately. A heated version of the WSR is also available.



SPECIFICATIONS

WIND SPEED

Range: 0-150 MPH. (0-67 m/s).
Threshold: 2.0 MPH (0.9 m/s).
Accuracy: $\pm 1.0\%$ of full scale.
Resolution: One unit

WIND DIRECTION

Range: 0-360 - no dead band.
Threshold: 2.0 MPH.
Accuracy: $\pm 5.0^\circ$
Resolution: 10.0°

