



The Professional Wind Sensor is a high resolution, rugged wind sensor. Its simplicity

and corrosion resistant construction make it well suited for a wide range of wind measuring applications.

The wind speed sensor is a four-blade helicoid propeller. Propeller rotation produces an AC signal with frequency directly proportional to speed. Slip rings and brushes are eliminated for increased reliability. The direction sensor is a rugged, lightweight vane with a low aspect ratio to assure good fidelity in fluctuating wind conditions. A precision potentiometer housed in a sealed chamber senses vane angle. A mounting orientation ring assures correct realignment of the wind direction reference when the instrument is removed for maintenance.

The instrument is made of UV stabilized plastic with stainless steel and anodized aluminum fittings. It uses precision grade, stainless steel ball bearings. A convenient junction box houses transient protection and cable terminations. The instrument mounts on a standard 1-inch pipe.

The Pro AQ (MT-WD0009) model is specially designed to measure air quality; this model is slightly less rugged than the Professional Wind Sensor. An additional enhanced model for offshore and marine use offers the added features of special bearing lubricant and sealed heavy-duty cable pigtail in place of the junction box.

Two types of sensor interfaces are available for data logging applications. The voltage output interface provides calibrated speed and direction signals. The line driver interface provides separate 4-20 mA, two-wire current loops for lines up to several kilometers long operating in high noise areas.

Technical Specifications

Range

Wind speed: 0-100 m/s (224 mph)
0-50 m/s (AQ)

Azimuth: 0-360°

Accuracy

Wind speed: ±0.3 m/s, ±0.2 m/s (AQ)

Wind direction: ±3 degrees

Threshold

Propeller: 1.0 m/s (2.2 mph)
0.4 m/s (AQ)

Vane: 1.1 m/s
0.5 m/s (AQ)

Signal Output

Wind speed: AC volts, 3 Hz per revolution

Azimuth: 10K Ω conductive plastic potentiometer (50 M revolutions).
15 VDC maximum excitation.

Operating Temp: -50°C to 50°C

Dimensions

Size: 37 cm (14.6") x 55 cm (21.7")

Mounting: 34 mm (1.34") diameter

Weight: 1.0 kg (2.2 lbs)

Ordering Options

Wind Monitor

Wind Monitor – AQ (air quality measurement)

Wind Voltage Output Interface

Wind Line Driver Interface

The Professional Wind Sensor is an excellent choice for aviation use.

