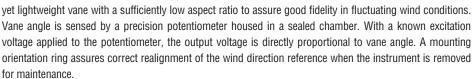


The Wind Monitor is a high performance, rugged wind sensor. Its simplicity and corrosion-resistant construction make it ideal for a wide range of wind measuring applications.

The wind speed sensor is a four blade helicoid propeller. Propeller rotation produces an AC sine wave voltage signal with frequency directly proportional to wind speed. Slip rings and brushes are eliminated for increased reliability.

The wind direction sensor is a rugged



The instrument is made of UV stabilized plastic with stainless steel and anodized aluminum fittings. Precision grade, stainless steel ball bearings are used. Transient protection and cable terminations are in



a convenient junction box. The instrument mounts on standard 1 inch pipe.

For offshore and marine use, the Model 05106, Wind Monitor-MA features special waterproof bearing lubricant and a sealed, heavy-duty cable pigtail in place of the standard junction box. Separate signal conditioning for voltage or current outputs is available.

The Wind Monitor is available with two additional output signal options. Model 05103V offers calibrated 0-1 VDC outputs (0-5 VDC optional), convenient for use with many dataloggers. Model 05103L provides a calibrated 4-20 mA current signal for each channel, useful in high noise areas or for long cables (up to several kilometers). Signal

conditioning electronics are integrated into the sensor junction box.

Ordering Information MODEL * SPECIFY SUFFIX FOR DESIRED WIND SPEED SCALE:



Wind speed: 0-60 m/s (134 mph) Gust survival: 100 m/s (220 mph)

Azimuth: 360° mechanical, 355° electrical (5° open)

Wind speed: ±0.3 m/s (0.6 mph) Wind direction: ±3 degrees

Threshold:'

Propeller: 1.0 m/s (2.2 mph) 1.1 m/s (2.4 mph) 05106 Vane: 1.1 m/s (2.4 mph) 05103

Dynamic Response:*

Propeller distance constant (63% recovery) 2.7 m (8.9 ft) Vane delay distance (50% recovery) 1.3 m (4.3 ft) Damping ratio: 0.3

Damped natural wavelength: 7.4 m (24.3 ft) Undamped natural wavelength: 7.2 m (23.6 ft)

Signal Output:

Wind speed: magnetically induced AC voltage, 3 pulses per revolution. 1800 rpm (90 Hz) = 8.8 m/s (19.7 mph) Azimuth: analog DC voltage from conductive plastic potentiometer- resistance 10K Ω. linearity 0.25%. life expectancy- 50 million revolutions

Power Requirement:

Potentiometer excitation: 15 VDC maximum

Overall height: 37 cm (14.6 in) Overall length: 55 cm (21.7 in) Propeller: 18 cm (7 in) diameter

Mounting: 34 mm (1.34 in) diameter (std. 1 inch pipe)

Sensor weight: 1.0 kg (2.2 lbs) Shipping weight: 2.3 kg (5 lbs)

*Nominal values, determined in accordance with ASTM standard procedures.

MODEL 05103V 0-1 VDC outputs

Power Requirement: 8-24 VDC (5 mA @ 12 VDC)

Operating Temperature: -50 to 50° C

Output Signals: 0-1.00 VDC full scale 0-5.00 VDC optional

MODEL 05103L 4-20 mA outputs

Power Requirement: 8-30 VDC (40 mA max.)

Operating Temperature: -50 to 50° C

Output Signals: 4-20 mA full scale



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