

WIND SENSOR - PROP VANE

5600-0200, 5600-0201



FEATURES

- Construction of UV stabilized thermoplastic with stainless steel and anodized aluminum fittings
- Injection-molded helicoid shape propeller
- Propeller rotation produces AC sine wave voltage signal with frequency directly proportional to wind speed.
- Slip rings and brushes are eliminated for increased reliability
- Assures good fidelity in varying wind conditions
- Vane position sensed by a precision potentiometer located in sealed chamber
- Known excitation voltage applied to potentiometer element produces voltage directly proportional to azimuth angle.
- Cable terminations are in junction box on mounting post for ease in making sensor cable connections.
- A 5 conductor cable is required for power and sensor connections.
- Precision grade stainless steel precision ball bearings
- Orientation ring for maintaining wind direction reference when the instrument is removed for maintenance

ORDERING

5600-0201	Wind Sensor - Prop Vane (includes amplifier) for 8200/8210A
5600-0200	Wind Sensor-Prop Vane (no amplifier) for Xpert/XLite
6411-1151-1	Cable Assy, WS/WD, 30 ft

IMPROVED RELIABILITY AND LOWER COST THANKS TO RUGGED, LIGHT WEIGHT, CORROSION-RESISTANT CONSTRUCTION

SPECIFICATIONS

Specifications subject to change without notice

WIND SPEED

Range	0 - 134 mph (0-60m/s)
Gust Survival	220 mph (100 m/s)
Accuracy	±0.6 mph (±0.3 m/s)
Threshold	Propeller - 2.2mph (1.0m/s)
Dynamic Response	Propeller distance constant (63% recovery) 8.9 ft (2.7m)
Output	Magnetically induced AC voltage, shaped to 5 volt square wave, 1800 rpm (90 Hz) = 19.7 mph (8.8m/s)
Power Requirement	8 VDC min - 15 VDC max (5mA @ 12VDC)

WIND DIRECTION

Range	360° mechanical 355° electrical (5° open)
Accuracy	±3 degrees
Threshold	Vane - 2.4mph (1.1m/s)
Vane Delay Distance	50% recovery 4.3 ft (1.3m)
Damping Ratio	0.3
Nat. Wavelength	24.3 ft. (7.4m)
Output	10K potentiometer resistance, linearity 0.25%
Power Requirements	15 VDC max
Life Expectancy	50 million revolutions

GENERAL SPECIFICATIONS

Overall Height	14.6 in (37 cm)
Length	21.7 in (55 cm)
Weight	2.2 lb. (1 kg.)

HELPFUL HINTS

Connect speed output to counter input of 8200A or 8210 Recorder. Connect direction output to analog input. Note: you must use the wind speed/wind direction sensor definition in the Enable sensors menu in the 8200A/8210 setup. Failure to do so will provide incorrect i.e. non-vectored reading. Refer to chapter 6 and 7 of the 8200A/8210 Operations Manual for setup information.