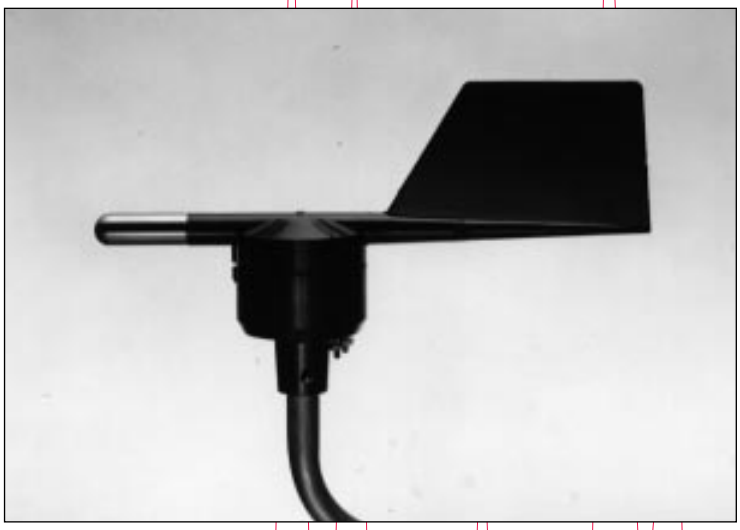
200 SERIES WIND VANE

Wind Direction Sensor

NRG Systems

MEASURING THE WIND'S ENERGY



■ The 200 Series Wind Direction Vane is a professional quality sensor, originally designed for use in some of the world's largest wind power plants. Its unique qualities make it ideal for use in many other applications in environmental testing and meteorology. ■ Although moderately priced, these sensors offer a level of quality and reliability often found only at a very high premium. The thermoplastic and stainless steel components resist corrosion, and contribute to a high strength-to-weight ratio. ■ As with all NRG Systems products, the 200 Series Vane is elegantly engineered, employing a minimum number of parts while maximizing functional performance. ■ The vane is directly connected to a precision conductive plastic potentiometer located in the main body. An analog voltage output directly proportional to the wind direction is produced when a constant DC excitation voltage is applied to the potentiometer. Several different yaw vane configurations are available for wind turbine control. ■ Field proven, the #200 is the wind industry de facto standard.

NRG SYSTEMS

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200 SERIES WIND VANE
Wind Direction Sensor

APPLICATIONS
- Wind direction sensor for wind data loggers
- Yaw control on wind turbines
- Environmental monitoring instrumentation
- Meteorological studies

FEATURES
- Simple mechanical construction
- Long life, professional quality potentiometer
- No slip rings or brushes result in high reliability, low cost
- Corrosion-resistant materials
- Multiple mechanical and contact seals
- No setscrews to vibrate loose
- Very stable and smooth response to wind changes
- Fully balanced sensor vane

SPECIFICATIONS
MECHANICAL:
Range: Direction–360° mechanical, continuous rotation
Sensitivity: Approx. 1 m/s (2.2 mph)
Materials:
Direction vane and housing–black UV stabilized injection molded plastic
Balance weight–stainless steel
Terminals–three #4-40 solid brass studs with nuts
Potentiometer–stainless steel shaft in two shielded precision grade, stainless steel ball bearings, conductive plastic potentiometer element mounted in a machined aluminum housing
Hardware–all stainless steel construction
Dimensions:
Overall length–21cm (8.3")
Swept diameter–27cm (10.5")
Overall height–12cm (4.3")
Vane size–6cm high x 10cm long (2.3" x 3.8")
Main housing diameter–5cm (2")
Mounting–13mm (0.5") diameter mast with cotter pin and mast set screw
Weight: 0.1kg (0.25 lb)
Shipping Weight: 0.5kg (1 lb)
ELECTRICAL:
Range:
Direction– #200: 340° elecrical (20° open); #200P: 352° electrical (8° open)
Signal:
Analog DC voltage from conductive plastic potentiometer 1K(#200), 10K(#200P); linearity 1.0%, life expectancy of 50 million revolutions (2-6 years normal operation)
Power Requirements:
Regulated potentiometer excitation of 1 to 15 VDC

#200YZ YAW CONTROL WIND VANE
The #200YZ Vane is built with standard #200 Series vane and body with an opto-interrupter type switching system. This yaw control sensor has an open collector, sinking output. Switch points are +/- 10° right or left. Also will control wind turbine yaw at 90° out of the wind.

SPECIFICATIONS MAY CHANGE WITHOUT NOTICE.

ORDERING INFORMATION:

Wind Direction Vane–1K	Cat. No. 200
Precision Wind Direction Vane–10K	Cat. No. 200P

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