

WINDSENSOR P2546-OPR CLASS 1 ANEMOMETER

CLASS 1 PERFORMANCE WITH UNRIVALED DURABILITY

- Class 1 anemometer with excellent performance in both flat and complex terrain for low measurement uncertainty on any site
- Precision-molded one-piece rotor (OPR) introduced in 2011 provides unrivaled durability and consistent sensor-to-sensor repeatability
- Distinctive rotor geometry provides unmatched gust response for accurate turbulence intensity measurements and complex wind sites
- Uniquely suitable for offshore and coastal environments due to superior corrosion resistance and environmental protection



NRGSystems™

WINDSENSOR P2546-OPR

WindSensor's P2546-OPR anemometer combines Class 1 performance with unrivaled durability, for the most certain measurements in any environment. Originally designed for marine environments, the P2546-OPR is ideally suited for wind resource assessment and power performance studies both onshore and off.

Description	Sensor type <ul style="list-style-type: none">• 3-cup anemometer Sensor range <ul style="list-style-type: none">• 0 m/s to 75 m/s (0 mph to 168 mph) Instrument compatibility <ul style="list-style-type: none">• all Renewable NRG Systems data loggers	Applications <ul style="list-style-type: none">• wind resource assessment• wind power performance measurements, per IEC 61400-12-1• meteorological studies
Output Signal	Signal generator <ul style="list-style-type: none">• P2546C-OPR: Coil• P2546A-OPR: Bounce-free reed switch Signal types <ul style="list-style-type: none">• P2546C-OPR: Low level AC sine wave, frequency linearly proportional to wind speed• P2546A-OPR: Square wave, frequency linearly proportional to wind speed Output signal range <ul style="list-style-type: none">• 0 Hz to 120 Hz	Calibration <ul style="list-style-type: none">• each anemometer individually calibrated, calibration reports with transfer function provided via electronic download Uncertainty <p>IEC 61400-12-1 Classification</p> <ul style="list-style-type: none">• Class 1.32A• Class 3.71B• refer to individual calibration report for information on calibration uncertainty
Response Characteristics	Threshold <ul style="list-style-type: none">• < 0.4 m/s (0.9 mph) Swept diameter of rotor <ul style="list-style-type: none">• 188 mm (7.40 inches)	Distance constant (63% recovery) <ul style="list-style-type: none">• 1.81±0.04 m (5.94 ±0.13ft) Moment of inertia <ul style="list-style-type: none">• 9.93 E-05 kg·m² (7.32 × 10⁻⁵ S-ft²)
Installation	Mounting <ul style="list-style-type: none">• onto a 25 mm (0.984 inch) diameter mast with two set screws	Tools required <ul style="list-style-type: none">• 4mm Allen wrench
Environmental	Operating temperature range <ul style="list-style-type: none">• -38 °C to 80 °C (-36 °F to 176 °F)	Operating humidity range <ul style="list-style-type: none">• 0% to 100% RH
Materials	Cups <ul style="list-style-type: none">• one-piece rotor, injection molded glass-fiber reinforced plastic Body <ul style="list-style-type: none">• anodized aluminum	Shaft <ul style="list-style-type: none">• stainless steel Bearing <ul style="list-style-type: none">• stainless steel ball bearings
Physical	Integral connector <ul style="list-style-type: none">• Lemo Series E Triaxial female connector Cable mating connector <ul style="list-style-type: none">• Lemo Series E Triaxial male connector (included in delivery)	Weight <ul style="list-style-type: none">• 0.40 kg (0.9 pounds) Dimensions <ul style="list-style-type: none">• 3 cups of conical cross-section, 70 mm (2.76 inches) dia.

For more information:

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ISO 9001: 2008 Certified

