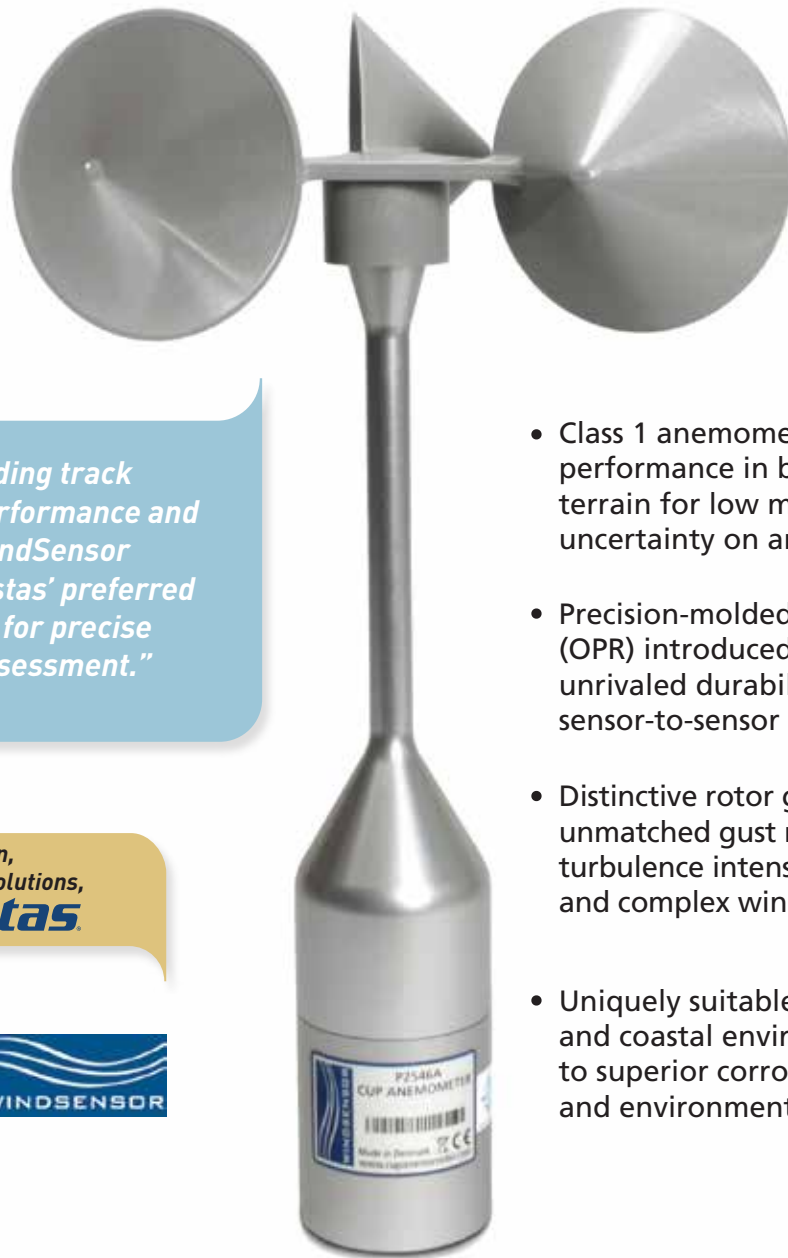


# WindSensor P2546-OPR Anemometer



*"With an outstanding track record in field performance and durability, the WindSensor P2546-OPR is Vestas' preferred cup anemometer for precise wind resource assessment."*

*-Lars Chr. Christensen,  
Vice President Plant Solutions,  
**Vestas***



- 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

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SEE THE POTENTIAL™

# WindSensor P2546-OPR

WindSensor's P2546-OPR anemometer combines first class 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.

<b>Description</b>	<b>Sensor type</b> <ul style="list-style-type: none"> <li>■ 3-cup anemometer</li> </ul> <b>Sensor range</b> <ul style="list-style-type: none"> <li>■ 0 m/s to 75 m/s (0 mph to 168 mph)</li> </ul> <b>Instrument compatibility</b> <ul style="list-style-type: none"> <li>■ all Renewable NRG Systems loggers</li> </ul>	<b>Applications</b> <ul style="list-style-type: none"> <li>■ wind resource assessment</li> <li>■ wind power performance monitoring</li> <li>■ meteorological studies</li> <li>■ environmental monitoring</li> </ul>
<b>Output Signal</b>	<b>Signal type</b> Two options available: <ul style="list-style-type: none"> <li>■ P2546C-OPR: Low level AC sine wave, frequency linearly proportional to wind speed</li> <li>■ P2546A-OPR: Square wave, frequency linearly proportional to wind speed</li> </ul> <b>Anemometer transfer function</b> <ul style="list-style-type: none"> <li>■ refer to individual calibration report for anemometer transfer function</li> </ul>	<b>Calibration</b> <ul style="list-style-type: none"> <li>■ Each anemometer individually calibrated, calibration report provided via electronic download</li> </ul> <b>Output signal range</b> <ul style="list-style-type: none"> <li>■ 0 Hz to 120 Hz</li> </ul> <b>Uncertainty</b> IEC 61400-12-1 Classification <ul style="list-style-type: none"> <li>■ Class 1.3A</li> <li>■ Class 3.6B</li> <li>■ refer to individual calibration report for information on calibration uncertainty</li> </ul>
<b>Response Characteristics</b>	<b>Threshold</b> <ul style="list-style-type: none"> <li>■ &lt; 0.4 m/s (0.9 mph)</li> </ul> <b>Swept diameter of rotor</b> <ul style="list-style-type: none"> <li>■ 187 mm (7.36 in)</li> </ul>	<b>Distance constant</b> (63% recovery) <ul style="list-style-type: none"> <li>■ 1.81±0.04 m (5.94 ±0.13ft )</li> </ul> <b>Moment of inertia</b> <ul style="list-style-type: none"> <li>■ 1.01× 10<sup>-4</sup> kg-m<sup>2</sup> (7.45 × 10<sup>-5</sup> S-ft<sup>2</sup> )</li> </ul>
<b>Installation</b>	<b>Mounting</b> <ul style="list-style-type: none"> <li>■ onto a 25 mm (0.984 inch) diameter mast with two set screws</li> </ul>	<b>Tools required</b> <ul style="list-style-type: none"> <li>■ 4mm Allen wrench</li> </ul>
<b>Environmental</b>	<b>Operating temperature range</b> <ul style="list-style-type: none"> <li>■ -35 °C to 60 °C (-31 °F to 140 °F)</li> </ul>	<b>Operating humidity range</b> <ul style="list-style-type: none"> <li>■ 0% to 100% RH</li> </ul>
<b>Materials</b>	<b>Cups</b> <ul style="list-style-type: none"> <li>■ robust one-piece, injection molded polycarbonate/fiberglass blend</li> </ul> <b>Body</b> <ul style="list-style-type: none"> <li>■ anodized aluminum</li> </ul> <b>Shaft</b> <ul style="list-style-type: none"> <li>■ stainless steel</li> </ul>	<b>Bearing</b> <ul style="list-style-type: none"> <li>■ stainless steel ball bearings</li> </ul> <b>Magnet</b> <ul style="list-style-type: none"> <li>■ one permanent ring magnet</li> </ul>
<b>Physical</b>	<b>Connections</b> <ul style="list-style-type: none"> <li>■ push-pull connector (purchased separately)</li> </ul> <b>Weight</b> <ul style="list-style-type: none"> <li>■ 0.36 kg (0.8 pounds)</li> </ul>	<b>Dimensions</b> <ul style="list-style-type: none"> <li>■ 3 cups of conical cross-section 70 mm (2.76 inches) dia.</li> <li>■ 282 mm (11.10 inches) overall assembly height</li> </ul>

**For more information:**  
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