

ET4000 Industry Standard Wind Sensor



This anemometer is an improved version of the popular three-cup design used in wind assessments for decades, manufactured to precise industry standards. The rotor is made of tough polycarbonate for exceptional durability and reliability. The sensor base is also made of rugged polycarbonate, making it more resistant to damage during installation.

Manufactured in the USA with exceptional quality control—all units are tested mechanically and electronically before shipping. The sensor is made entirely of Lexan, a strong plastic that makes the anemometer less likely to break during installation. Its distinctive vinyl boot shields wiring for long-term performance. Additionally, it is manufactured to meet new standards and is RoHS-compliant— no toxic metals.

* Reed relay (switch contact closure) output also available

Specifications:

- Conical cups measure 51 mm (2 inches) in diameter
- Rotor diameter is 190 mm (7.5 inches)
- Standard AC output, frequency proportional to cup rotational speed
- Shielded AC pickup coil, 4100 turns of #41 wire
- Four-pole Indox 1 magnet rotates with the cup assembly
- Fully hardened beryllium-copper shaft running in self-lubricating modified Teflon bearings
- Protective boot to make the system dirt and water resistant
- Rated bearing PV (pressure-velocity) factor is 20,000 - At 15 mph PV is approx. 500. - At 100 mph PV is approx. 2,000.
- Rotor assembly moment of inertia = 68×10^{-6} S-ft² (or 92.2×10^{-6} kg-m²)
- Distance constant = 10 feet (3.0 meters)
- Transfer Function: $m/s = (Hz \times 0.766) + 0.324$ [miles per hour = $(Hz \times 1.714) + 0.725$]
- Accuracy: within 0.1 m/s (0.2 mph) for the range 5 m/s to 25 m/s (11 mph to 55 mph)