



#40R Anemometer

APRS World, LLC specializes in data logging and control equipment primarily for the renewable energy industry. To learn more about this product or any of our other products, please visit us online at:

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This #40R Anemometer is an improved version of the popular three-cup design used in wind assessments for decades. It is 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 than our competition. A green molded vinyl boot protects the anemometer wiring. Made in the USA with exceptional quality control -- all units are tested mechanically and electronically before shipping.

Internally, the #40R anemometer has a fully hardened beryllium-copper shaft running in self-lubricating modified Teflon bearings. The rated bearing PV (pressure-velocity) factor is 20,000. At 15 MPH the PV is approximately 500. At 100 MPH the PV is approximately 2,000. Over designed is an understatement.



Performance	
Accuracy	Within 0.1 m/s (0.2 MPH) for the range 5 m/s to 25 m/s (11 MPH to 55 MPH)
Rotor Moment of Inertia	92.2 x 10 ⁻⁶ kg-m ² (68 x 10 ⁻⁶ S-ft ²)
Distance Constant	3.0 m (10 feet)
Callibration	Not individually calibrated. Calibration statically based on samples.
Output Signal	
Sensor Type	Reed switch, dry contact. Frequency proportional to cup rotational speed.
Transfer Function	m/s = (Hz * 0.383) + 0.324; MPH = (Hz * 0.857) + 0.725
Protection	Metal Oxide Varistor (MOV) between terminals
Physical Properties	
Cup Diameter	51 mm (2 inches)
Rotor Diameter	190 mm (7.5 inches)
Weight	108 grams (3.8 ounces)
Mounting and Wiring	
Mounts On	12.7 mm (0.5 inches) round rod or tubing
Mounts Using	Set screw and cotter pin
Wiring Terminals	Two #4-40 brass screws with captive nuts

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Part Number: APRS6504
Shipping Weight: 0.23 kg / 0.50 lb
RoHS: compliant

Also available separately:
Anemometer / Wind Vane Boot

Part Number: APRS6512
Shipping Weight: 0.13 kg / 0.22 lb



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