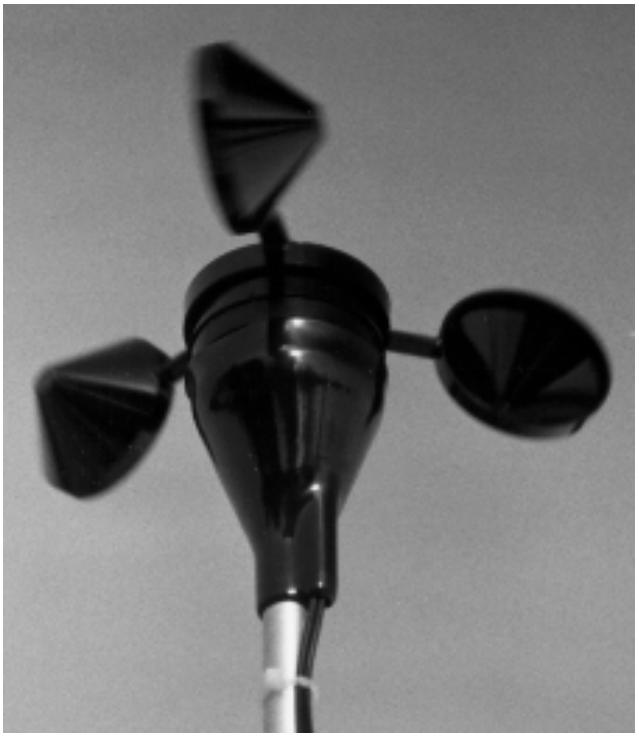
Model A75-101
Three Cup Anemometer

Document 2119C



Applications

- Research measurements in environmental studies
- Engineering studies on wind effects on bridges, skyscrapers
- Control anemometer for new or existing wind warning devices
- Anemometer for wind resource assessment instrumentation

Features

- Very simple, elegantly engineered construction
- Dirt and water resistant, modified Teflon bearing system
- All corrosion resistant materials
- All three cups molded in one piece for repeatable performance
- Professional qualities at a minimum price

Note: Calibration reports available at additional cost.

Specifications

Threshold:
Starting threshold - 0.75 m/s (1.75 M.P.H.)
Cup distance constant (63% recovery) - 3.0 m (10 ft.)

Materials:
Cups one piece injection molded black polycarbonate (Lexan) Body housing is black ABS plastic
Shaft beryllium copper - fully hardened
Bearing modified Teflon, self-lubricating. Rated Pv factor of 20,000 (at 15 mph, Pv is approx. 500; at 100 mph Pv is approx 2,000) Upper Bearing is centered in the plane of cup thrust for optimal loading. Permanent magnet Indox 1, 25 mm (1 in) dia., 13 mm (0.5 in) long, 4 poles

Weight:
0.1 kg (0.2 lb.)

Dimensions:
3 cups conical cross-section - 51 mm (2 in) dia.
Swept diameter of rotor - 190 mm (7.5 in)
Overall height - 81 mm (3.2 in)
Moment of Inertia of rotor assembly = 68 x 10-6 S - ft2

Mounting:
using a cotter pin on a 13 mm (0.5 in) diameter mast with a #35 hole 11 mm (.35 in) from the top

Electrical:
Reed Switch: Maximum voltage 10VDC
Maximum Current 10 mA
Lifetime: 10^9 cycles
Output signal: Contact transfer rate varies linearly with wind speed. 120 contact transfers per second at 102.5 MPH

Environmental:
Operating temperature -40 to 60°C (-40 to 150°F)
Operating humidity range 0 to 100% RH
Gust Survival Speed : 214 MPH

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