



No moving parts

Reliable wind measurements

Overview

The RM Young 86000 Ultrasonic Anemometer is a 2-axis, no-moving-parts wind sensor. It is ideal for general meteorological applications requiring accurate and reliable measurement.

The 86000 is fully wind tunnel tested and calibrated to provide accurate wind measurement over a wide operating range.

Benefits and Features

- › Easy installation and maintenance
- › Low power operation
- › Wide operating temperature range

Technical Description

The sensor features durable, corrosion-resistant construction with sensitive ultrasonic transducers in a streamlined molded frame.

The standard sensor offers a variety of useful output options. Analog voltage outputs are provided for wind speed and wind direction. A variety of serial output formats are also available. These include ASCII text, RMYT (compatible with RM Young displays) and NMEA formats.

The sensor installs on readily available 1 inch (IPS) pipe. Wiring connections are made in a convenient weatherproof junction box; special mounting adapters, connectors, and cables are not required.

Specifications

Wind Speed: 0 to m/s (0 to 156 mph)

- › Resolution: 0.01 m/s
- › Threshold: <0.01 m/s
- › Accuracy: $\pm 2\%$, ± 0.1 m/s (30 m/s), $\pm 3\%$ (70 m/s)
- › Response Time: <0.25 seconds

Wind Direction: 0 to 360 degrees

- › Resolution: 0.1 degree
- › Threshold: <0.01 m/s
- › Accuracy: ± 2 degrees
- › Response Time: 0.25 seconds

Serial Output: RS-232 or RS-485

- › Formats: ASCII, ASCII polled, RMYT, NMEA
- › Baud: 1200, 4800, 9600, 38400
- › Units: km/hr, MPH, m/s, Knots
- › Wind Format: Speed & Direction or U & V
- › Status Indicator: Standard with ASCII & NMEA

Analog Outputs: 0-5000 mV or 4-20 mA

- › Analog Wind Scale: 0 to 100 m/s
- › Analog Direction Scale: 0-360 or 0-540 degrees

Output Update Rate: 0.1 to 10 Hz

Power Requirement: 10 to 30 VDC, <20 mA (typical)

Environmental:

- › Operating Temperature: -50°C to +60°C
- › Protection Class: IP66

Dimensions: 29 cm high x 11 cm wide

- › Weight: 0.4 kg (0.9 lb)
- › Shipping Weight: 1.0 kg (2.2 lb)



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