

wind



Model 86000  
**Ultrasonic Anemometer**

**Introducing the YOUNG Model 86000 next generation 2D Ultrasonic Anemometer. The sensor offers high performance and low power consumption in a compact size. It is ideal for the most demanding wind sensing applications.**

The sensor features durable, corrosion-resistant construction with sensitive ultrasonic transducers secured in a streamlined molded frame. The **86000** is fully wind tunnel tested and calibrated to provide accurate wind measurement over a wide operating range.

The standard sensor includes many useful output options. Analog voltage outputs are provided for wind speed and wind direction. 4-20 mA current signals are available for each channel and are well suited for long cable runs or for industrial settings where noise immunity is important. A variety of serial output formats are also available. These include ASCII text, RMYT (compatible with YOUNG displays), NMEA and SDI-12 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:** 0-70 m/s  
 Resolution: 0.01 m/s  
 Starting Threshold: <0.01 m/s  
 Accuracy: 30 m/s  $\pm$  2% or 0.1 m/s, 70 m/s  $\pm$  3%  
 Response Time: < 0.25 seconds

**Wind Direction:** 0 to 360 degrees  
 Resolution: 0.1 degree  
 Starting Threshold: < 0.01 m/s  
 Accuracy:  $\pm$  2 degrees  
 Response Time: < 0.25 seconds

**Serial Output:** RS232 or RS485  
 Formats: ASCII, ASCII polled, NMEA, RMYT  
 Baud: 1200, 4800, 9600, 38400  
 Wind Units: m/s, knots, mph, kmph  
 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: 0-100 m/s  
 Analog Direction Scale: 0-360 or 0-540 degrees

**Output Update Rate:** 0.1 to 10 Hz

**Power Requirement:**  
 Sensor: 10-30 VDC < 20 mA typical  
 Heater: 24 VDC, 2.5 A (Model 86004 Only)

**Environmental:**  
 Operating Temperature: -50 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)

For extended cold-weather use, Model **86004** features thermostatically controlled heaters in transducer and housing surfaces.



### Ordering Information

### MODEL

ULTRASONIC ANEMOMETER - CURRENT, VOLTAGE & SERIAL OUTPUT.....	<b>86000</b>
ULTRASONIC ANEMOMETER - HEATED .....	<b>86004</b>
ULTRASONIC ANEMOMETER - MARINE VERSION - NMEA SERIAL OUTPUT.....	<b>86106</b>

**CE** Complies with applicable CE directives.



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