

wind



Instruments for:
METEOROLOGY
HYDROLOGY
WATER QUALITY
AIR QUALITY
INDOOR CLIMATE
VENTILATION



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.....**86000**
ULTRASONIC ANEMOMETER - HEATED**86004**
ULTRASONIC ANEMOMETER - MARINE VERSION – NMEA SERIAL OUTPUT.....**86106**

CE Complies with applicable CE directives.



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