

wind



Model 86000
Ultrasonic Anemometer

Introducing the YOUNG Model 86000 next-generation 2D Ultrasonic Anemometer, offering high performance, low cost, and compact size. Loaded with standard options, this sensor is ideal for the most demanding sensing requirements.

Featuring 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 reliable, accurate wind measurement.

Standard outputs include analog voltage output and RS-232 serial connections. For use in industrial settings where noise immunity is important, calibrated 4-20 mA current and RS-485 serial outputs are also included. A variety of serial data formats are provided including ASCII text, RMYT (compatible with YOUNG displays), and NMEA for marine use. SDI-12 model also available.

The **86000** installs on readily available 1-inch (IPS) pipe. Cable wires connect to convenient, reliable terminals in a weather-proof junction box; special mounting adapters, connectors, and cables are not required.



Specifications

Wind Speed: 0-75 m/s
Resolution: 0.01 m/s
Starting Threshold: 0.01 m/s
Accuracy: 30 m/s $\pm$ 2% or 0.1 m/s, 75 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
SDI-12
Baud: 1200, 4800, 9600, 19200, 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 20 Hz

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

Environmental:
Operating Temperature: -40 to +60°C
Protection Class: IP65

Dimensions: 29 cm high x 11 cm wide
Weight: 0.4 kg (0.9 lb)
Shipping Weight: 1.6 kg (3.5 lb)

For extended cold-weather use, Model **86004** features thermostatically controlled heaters in transducer and housing surfaces. Wind speed range reduced with heated model.



 Complies with applicable CE directives.

Ordering Information

MODEL

ULTRASONIC ANEMOMETER - CURRENT, VOLTAGE & SERIAL OUTPUTS**86000**
ULTRASONIC ANEMOMETER - HEATED W/ CURRENT, VOLTAGE & SERIAL OUTPUTS**86004**
BIRD WIRE ASSEMBLY - (FOR USE WITH 86004)**86052**
ULTRASONIC ANEMOMETER - MARINE VERSION - NMEA SERIAL OUTPUT.....**86106**
ULTRASONIC ANEMOMETER - SDI-12**86000-SDI**



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