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 ± 2% or 0.1 m/s, 75 m/s ± 3%
  - Response Time: < 0.25 seconds

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

- **Serial Output:** RS232 or RS485
  - Formats: ASCII, ASCII polled, NMEA, RMYT SDI-12
  - 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:**
  - RS232 or RS485
  - Formats: ASCII, ASCII polled, NMEA, RMYT SDI-12
  - 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

- **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: -40 to +60°C
  - Protection Class: IP65

- **Dimensions:** 29 cm high x 11 cm wide
- **Weight:** 0.4 kg (0.9 lb)
- **Shipping Weight:** 1.0 kg (2.2 lb)

### Ordering Information

**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  

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.