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 ± 2% or 0.1 m/s, 70 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
  - 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

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