



wind



Model 91000

*Response***ONE**<sup>™</sup> Ultrasonic Anemometer



# YOUNG Model 91000 *Response ONE™* Ultrasonic Anemometer

The YOUNG *Response ONE™* Ultrasonic Anemometer is designed to reliably measure wind speed and direction. The *Response ONE™* is wind tunnel calibrated and will accurately measure wind speeds up to 70 m/s (156 mph). The high sampling rate of the Model 91000 provides for fast response to changing wind conditions and wind data may be updated as fast as 10 times per second. An easy-to-use Windows setup program is provided with each sensor. The program allows the user to customize device settings such as sampling rates and communication parameters.

The compact IP-66 rated design features durable, corrosion-resistant construction. An integrated compass helps enable mobile applications (Models 91500 & 91500B). A variety of useful standard serial output formats are provided including SDI-12, NMEA, and ASCII text. The sensor installs on readily available 1 inch (IPS) pipe and wiring connections are made in a convenient weather-proof junction box. Special connectors and cables are not required. The Model 91000 is available in black or white.



## Specifications

<b>Wind Speed</b>	Range: 0 – 70 m/s (156 mph) Resolution: 0.01 m/s Starting Threshold: <0.01 m/s Accuracy: ±2% or 0.3 m/s (0 – 30 m/s) ±3% (30 – 70 m/s) Response Time: <0.25 seconds
<b>Wind Direction</b>	Azimuth Range: 0 - 360 degrees Resolution: 0.1 degree Starting Threshold: <0.01 m/s Accuracy: ±2 degrees Response Time: <0.25 seconds
<b>Electronic Compass (Models 91500 &amp; 91500 B)</b>	Range: 0 – 360 degrees Resolution: 1 degree Accuracy: ± 2.0 degrees
<b>Serial Output (selectable)</b>	Interface: RS-232, RS-485/422, SDI-12 Formats: NMEA, SDI-12, ASCII (polled or continuous) Baud Rates: 1200, 4800, 9600, 19200 and 38400 Wind Units: m/s, knots, mph, kmph Output Update Rate: 0.1 to 10 HZ
<b>Power</b>	Voltage: 10 – 30 VDC Current: 7 mA @ 12 VDC typical, 80 mA max
<b>General</b>	Protection Class: IP66 EMC Compliance: FCC Class A digital device, IEC Standard 61326-1 Dimensions: 22.0 cm high x 13.5 cm wide Weight: 0.5 kg (1.1 lb) Shipping Weight: 1.4 kg (3.1 lb) Operating Temperature: -40 to +60 °C Removable Bird Spikes: Included



The *Response ONE™* is compatible with a broad range of data loggers and displays, including the YOUNG Model 06206 Marine Wind Tracker.



## Ordering Information

MODEL

<b>Response ONE™</b> Ultrasonic Anemometer – White .....	<b>91000</b>
<b>Response ONE™</b> Weather Transmitter – White .....	<b>91500</b>
w/Internal Compass	
<b>Response ONE™</b> Ultrasonic Anemometer – Black.....	<b>91000B</b>
<b>Response ONE™</b> Weather Transmitter – Black .....	<b>91500B</b>
w/Internal Compass	



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