

The YOUNG Model 81000 Ultrasonic Anemometer is a 3-dimensional, no-moving-parts wind sensor. 2-D anemometers meet the need for economy, however, they ignore the important vertical wind component. The YOUNG Model 81000 offers an economical solution that provides a complete picture of the wind.

The sensor features robust construction with 3 opposing pairs of ultrasonic transducers supported by stainless steel members. This arrangement provides rigidity to the anemometer while offering a measure of protection to the transducers. The transducers are arranged so that measurements are made through a common volume, thereby improving the validity of the measurement. A fast, 160 Hz sampling rate ensures superior measurement resolution.

The 81000 anemometer installs on standard 1" pipe. Wiring connections are in a convenient junction box. Analog or digital output is selected by jumper placement inside the junction box; a variety of formats are available. Auxiliary analog inputs are provided for attachment of temperature and humidity probes and other sensors. These measurements are then transmitted serially with the wind data.



Specifications

General Requirements:

12 to 30 VDC , 4 watts
-50 to +50 °C operating temperature

Measurements:

160 Hz sample rate
±1% accuracy
0.01 m/s resolution
Averaging (user-selected)
0-30 m/s range*
* accuracy reduced above this range.

Auxiliary Inputs:

4 voltage inputs
2ea 0-1000mV, 0-4000mV, 12-bit

Outputs:

8 to 32 Hz (user-selected)
RS-232 or RS-485 digital outputs
(9600-38400 baud)
3 voltage outputs
(uvw or speed/azimuth/elevation)

Digital Output Formats:

User Programmable ASCII output configuration
(select from U, V, W, speed of sound, sonic temperature, 2D speed, 3D speed, Azimuth angle, Elevation angle)

Preset outputs:

NMEA
RMYT

Units:

m/s, cm/s, MPH, Knots, Km/hr

Dimensions:

55cm high x 17cm radius
1.7 kg (3.8lb)

Ordering Information

MODEL

ULTRASONIC ANEMOMETER81000

Specifications subject to change without notice.



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