

Ultrasonic Anemometer

Serial or Analog outputs

Features

- No moving parts
- Analog (0-5VDC) outputs
- RS232 or RS485 serial output
- NMEA format output available
- Rugged construction
- 0 to 70m/s (0 to 250kph) range
- Complements AIC's circular display

Description

The WS-85000 Ultrasonic Anemometer is a 2-axis (2D) wind sensor with no moving parts. It is ideal for general meteorological applications requiring accurate, reliable wind measurement.

The sensor features wide operating range, compact size, easy installation and low power operation.

Analog and digital signal outputs are available in several popular formats enhancing the flexibility of the sensor

The WS-85000 measures wind based on the transit time of ultrasonic pulses between four transducers. Air flow alters the transit time which is used to calculate flow velocity. Wind direction is determined from relative velocities along each acoustic path.

Measurement results are available as calibrated voltage output signals or serial data using RS-232 or RS485 connections. Continuous output or polled operation may be used. Serial formats can be selected to allow direct connection to NMEA systems or ASCII serial communications programs.

Operating parameters are selected using a simple setup program provided. All WS-85000 settings are stored internally in non-volatile memory.

The sensor is constructed using UV stabilised thermoplastic, stainless steel and anodised aluminium for superior environmental resistance.

Order Code

WS-85000 Ultrasonic Wind sensor



Specifications

Wind Speed

Range	0 to 70m/s (0 to 250kph)
Resolution	0.1 m/s
Accuracy	0 to 30 m/s, $\pm 2\%$ or 0.1 m/s 30 to 70 m/s, $\pm 3\%$

Wind Direction

Range	0-360 degrees
Resolution	1 degree
Accuracy	3 degrees

Serial Output

RS232 or RS485	1 sample/second (1 Hz)
Formats	ASCII text NMEA
Units	m/s, km/hr, knots, MPH

Analog Voltage Outputs

Wind speed	0 to 5000 mV = 0 to 100 m/s
Wind Direction	0 to 5000 mV = 0 to 360° or 0 to 540°

General Specifications

Power requirements	9-16VDC, 30mA typical
Dimensions	34cm high x 17cm wide
Weight	0.7kg (1.6kg packed)

WS85000-1.0-0

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