

## Model 820457 Ultrasonic Wind Sensor

Featuring durable, corrosion resistant construction with sensitive ultrasonic transducers secured in a streamlined molded frame, the 820457 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. SDI-12 model also available. (Please specify at time of ordering)

For extended cold-weather use, Model 820458 features thermostatically controlled heaters in transducer and housing surfaces. Wind speed range reduced with heated model.



Model 820457

## Specifications

### Wind Speed:

Range: 0-75 m/s  
Resolution: 0.01 m/s  
Starting Threshold: 0.01 m/s  
Accuracy: 30 m/s  $\pm$  2% or 0.1 m/s, 75 m/s  $\pm$  3%  
Response Time: < 0.25 seconds

### Wind Direction:

Range: 0 to 360 degrees  
Resolution: 0.1 degree  
Starting Threshold: 0.01 m/s  
Accuracy:  $\pm$  2 degrees  
Response Time: < 0.25 seconds

### Serial Output:

RS232 or RS485:  
Formats: ASCII, ASCII polled, NMEA, RMYT SDI -12:  
Baud: 1200, 4800, 9600, 19200, 38400

Wind Units: m/s, knots, mph, kmph  
Wind Format: Speed & Direction or U & V  
Status Indicator: Standard with ASCII & NMEA

Specifications are subject to change at any time.

### Analog Output:

Range: 0-5000 mV or 4-20 mA  
Analog Speed Scale: 0-100 m/s  
Analog Direction Scale: 0-360 or 0-540 degrees

### Output Update Rate:

User Adjustable: 0.1 to 20 H

### Power Requirement:

Sensor: 10-30 VDC < 20 mA typical  
Heater: 24 VDC, 2.5 A (Model 820458 Only)

### Environmental:

Operating Temperature: -40 to +60°C  
Protection Class: IP65

### Physical:

Dimensions: 29 cm high x 11 cm wide  
Weight: 0.4 kg (0.9 lb)  
Shipping Weight: 1.6 kg (3.5 lb)



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## Applications

- Ambient Air Monitoring
- Environmental Surveys
- Government

## Ordering Information:

- 2D Unheated Sonic P/N: 820457
- Cable Assembly for 820457: 400047
- 2D Heated Sonic P/N: 820458
- Cable Assembly for 820458: 400048
- Mounting Kit: 63633
- 24Vdc Power Supply for 820458 heaters: 10898