

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: 0-65 m/s
Resolution: 0.01 m/s
Starting Threshold: 0.01 m/s
Accuracy: $\pm 2\% \pm 0.1$ m/s (30 m/s); $\pm 3\%$ (65 m/s)
Response Time: < 0.25 seconds

Wind Direction:

Range: 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 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 Hz

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