

# Sonic Weather Station

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The **Sonic Weather Station** (SWS) is a complete high performance weather sensor using Met One Instruments' proven 2D sonic technology. This technology provides reference grade accuracy without moving parts and a built-in compass used for automatic alignment of the sensor. The temperature and humidity elements are integrated into an IP65 sealed module with a quick disconnect for ease of calibration in the field. The pressure element is precisely calibrated and temperature compensated for outstanding performance.

The SWS is designed for surface meteorological applications where accuracy and reliability matter.

#### Options:

- 10600 USB and power interface.
- WMO compliant external tipping bucket rain gauge connects simply and allows for correct installation and siting per industry guidelines.
- Solar radiation sensors are connected easily and integrate seamlessly into the SWS data record.

## Features

- Wind Speed and Direction
- Temperature
- Humidity
- Barometric Pressure
- Rain and Solar Radiation Options
- Rugged all metal housing
- SDI12, RS232, RS485 Outputs
- Met One 7500 Protocol
- Compact 10cm Diameter

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## Specifications

### Wind Speed

|             |                                 |
|-------------|---------------------------------|
| Range:      | 0 to 60 m/sec (0 to 134 mph)    |
| Accuracy:   | ±0.5 m/sec or 5% of reading (1) |
| Resolution: | 0.1 m/sec                       |

### Wind Direction

|             |                               |
|-------------|-------------------------------|
| Range:      | 0° - 360°                     |
| Accuracy:   | ± 5° @ wind speed > 2.2 m/sec |
| Resolution: | 1.0°                          |

### Temperature

|             |                                  |
|-------------|----------------------------------|
| Range:      | -40°C to +60°C (-40°F to +140°F) |
| Accuracy:   | ±0.2°C (2)                       |
| Resolution: | 0.1°C                            |

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## Specifications (continued)

### Relative Humidity

Range: 0 to 100 %  
Accuracy:  $\pm 3\%$  (3)  
Resolution: 1.0 %

### Pressure

Range: 600 to 1100 hPa  
Accuracy:  $\pm 0.5$  hPa (3)  
Resolution: 0.1 hPa

### Compass Option

Accuracy:  $\pm 2^\circ$   
Resolution:  $1^\circ$

### Electrical

Measurement Rate Output: 1 Hz  
Signal Output: RS-232C, RS-485, SDI-12  
8-36 VDC Supply, 40mA typical @ 12VDC, option dependent

### Environmental

Temperature:  $-40^\circ\text{C}$  to  $+60^\circ\text{C}$  ( $-40$  to  $+140^\circ\text{F}$ )  
Humidity: 0 to 100 %

### Notes:

1. Whichever is greater
2. 0 to 60C.  $\pm 0.5^\circ\text{C}$  from  $-40^\circ\text{C}$  to  $0^\circ\text{C}$
3. At  $25^\circ\text{C}$

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