

# MSO Weather Sensor

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The MSO is an integrated 5-parameter Weather Station. Wind Speed and Wind Direction are measured using conventional cup and vane techniques. All other measurements are housed in a multi-plate naturally aspirated radiation shield to reduce solar radiation heating errors. The shield consists of a series of concentric white aluminum plates, which allow air to flow through the shield, while blocking direct solar rays.

The temperature sensor is a platinum RTD. Relative humidity is a based on our accurate, solid-state sensor designed for continuous exposure to adverse climates. The barometric pressure sensor is a robust piezo-resistive device, featuring high accuracy and long-term stability.

The MSO serial output can include data from an optional tipping bucket rain gauge.

Output is a serial data stream every second, or upon command by data system

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.

## Key Features

- Wind Speed and Direction
- Rugged All Metal Housing
- Temperature
- SDI12, RS232, RS485 Outputs
- Humidity
- Met One 7500 Protocol
- Barometric Pressure
- Integrated Mount and 50ft Cable
- Rain and Solar Radiation Options



MSO Weather Sensor

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## Measurements & Specifications

### Wind Speed

Range:	0 to 50 m/sec (0 to 112 mph)
Accuracy:	±2% of reading
Resolution:	0.1 m/s
Threshold :	1m/sec

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## Measurements & Specifications

### Wind Direction

Range: 0° to 360°  
Accuracy: ± 5°  
Resolution: 1.0°  
Threshold: 1m/sec

### Temperature

Range: -40°C to +60°C (-40°F to +140°F)  
Accuracy: ±0.4°C  
Resolution: 0.1°C

### Relative Humidity

Range: 0 to 100%  
Accuracy: ±4% (1)  
Resolution: 1.0%

### Pressure

Range: 500 to 1100 hPa  
Accuracy: ±2 hPa (3)  
Resolution: 0.1 hPa

### Electrical

Measurement Rate Output: 1 Hz  
Signal Output: RS-232C, RS-485, SDI-12  
8-36 VDC Supply, 10mA typical @  
12VDC, option dependent

### Environmental

Temperature: -40°C to +60°C (-40 to +140 °F)  
Humidity: 0 to 100%

### Notes:

1. At 25°C

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