

MSO Weather Sensor

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 errors. The shield is constructed 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 class 1/3B. relative humidity is a based on our very accurate solid state sensor designed for continuous exposure to adverse climates. The barometric pressure sensor is a piezo-resistive device designed for robustness, high accuracy needs, as well as long term stability.

Digital outputs are presented as a 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



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

Wind Direction

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



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Measurements & Specifications (continued)

Temperature

Range: -40°C to +60°C (-40°F to +140°F)
Accuracy: $\pm 0.4^{\circ}\text{C}$
Resolution: 0.1°C

Relative Humidity

Range: 0 to 100%
Accuracy: $\pm 4\%$ (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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