

MSO Weather Sensor

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 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

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 Options

Options

- Model 10600 USB and power interface.
- WMO compliant external tipping bucket rain gauge connects simply and allows for correct installation and siting per industry guidelines.



Applications

- Ambient Air Monitoring
- Environmental Surveys
- Government Networks

Wind Speed

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

Wind Direction

Range: 0° to 360°
Accuracy: $\pm 5^\circ$
Resolution: 1.0°
Threshold: 1m/sec

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⁽¹⁾
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

Specifications are subject to change at any time.