

# Modular Weather Stations



## WMS-25 Series



- ✓ Desktop, NEMA, and Portable Models
- ✓ 8 Analog and 3 Digital Channel Inputs
- ✓ Resolution: 12-Bit A/D Converter on 4 Channels, 10-Bit on Other Channels
- ✓ Adjustable Logging Interval 10 to 60,000 Seconds
- ✓ 16 Character x 2 Line Backlit LCD Screen Display
- ✓ Real-Time Clock is Used to Time-Stamp each Measurement, Battery Backed, and Accurate to Within 10 Minutes Per Year
- ✓ Serial Port: RS232 9-Pin Connector, Selectable Baud Rate, Real-Time Data Output to PC (Using Hyperterminal or Optional Graphic Software)
- ✓ 2GB SD Memory Card and USB Card Reader Included

The WMS-25 Modular Weather Stations are meteorological systems designed to be a "user friendly" solution for data storage and real-time monitoring of weather conditions.

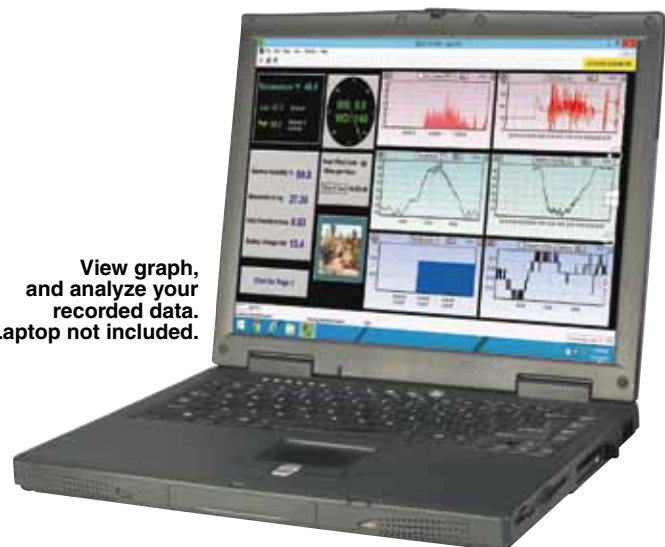
The standard sensor package includes 6 weather parameters: wind speed and direction, temperature and relative humidity, barometric pressure, and precipitation (additional optional sensors can be added), a 1.5 m (5') tripod and vertical mast for sensor mounting, and a data logger with LCD display.

No computer is required for setup and viewing data. A simple menu interface using the LCD display and three front panel buttons makes setup easy. Data is recorded directly to a Secure Digital (SD™) card, providing convenient data downloads and storage for many months of data. The data logger is compatible with standard SD cards up to 2GB. Logging at 1 minute intervals, a 2GB card will store over 5 years of data. A new file is created and saved to the card each day.

Using the recorded data is simple. The SD card is inserted into a card reader attached to the USB port on your computer (Windows, Macintosh, and Linux) and will then show up as a drive. To view and graph the data, click on the file corresponding to the day of interest. Microsoft Excel, OpenOffice.org, or any spreadsheet program can be used to view, graph, and analyze your data.



WMS-25 shown smaller than actual size.



View graph, and analyze your recorded data. Laptop not included.



## Specifications

**Power:** 10 to 30 Vdc at 20 mA

**Display:** 16 characters x 2 line backlit LCD

**Logging Interval:** Programmable  
10 to 60,000 seconds

### Wind Speed

**Range:** 0 to 125 mph (0 to 57 m/s)

**Resolution:** > 0.1 mph

**Accuracy:** ± 1 mph

**Starting Threshold:** 0.8 mph

**Time Constant:** 2 seconds

### Wind Direction

**Range:** 0 to 360°

**Resolution:** > 1%

**Accuracy:** ±3°

**Starting Threshold:**

Standard 1.2 mph

### Temperature

**Range:** -26 to 70°C (-15 to 158°F)

**Resolution:** > 0.1° F

**Accuracy:** ±0.5°C (±1°F) typical

**Response Time:** 50 seconds

### Relative Humidity

**Range:** 3% to 100%

non-condensing

**Accuracy:** ±3% typical

**Response Time:** 25 seconds

### Barometric Pressure

**Range:** 500 to 1100 mb

(14.7 to 32.5 inHg)

**Operating Temperature:**

-40 to 60°C (-40 to 140°F)

**Resolution:** ±0.3 mb or ±0.01 inHg

**Altitude Offset (For Sea Level**

**Correction):** User adjustable  
in logger

### Rain Gauge

**Resolution:** 0.01"/tip

8" diameter (20.5 cm) collector  
meets NWS specifications

**Switch:** Dry reed switch

**Output:** < 0.1 sec switch closure

**Accuracy:** ±2% at < 2" per hour

*Note: For weight and dimensions,  
see operator's manual at OMEGA.*

To Order		
Model No.	Description	Included Models
WMS-25	Weather station with indoor enclosure, with temperature and humidity	WMS-25-DL, WMS-25-WSD, WMS-25-BP, WMS-25-TH, WMS-25-RG and WMS-25-TP5
WMS-25-NEMA	Weather station with NEMA-4X enclosure, with temperature and humidity	WMS-25-NEMA-DL, WMS-25-WSD, WMS-25-BP, WMS-25-TH, WMS-25-RG and WMS-25-TP5
WMS-25-P	Portable weather station, with temperature	WMS-25-P-DL, WMS-25-WSD, WMS-25-AT and WMS-25-TP5
WMS-25-PRH	Portable weather station, with temperature and humidity	WMS-25-P-DL, WMS-25-WSD, WMS-25-TH and WMS-25-TP5
Accessories		
WMS-25-SP	Solar panel, 10 watt with regulator	
WMS-25-SR	Solar radiation sensor	
WMS-25-GS	Graphical display software	
WMS-25	Soil/water temperature sensor	
Replacement Parts		
WMS-25-BP	Barometric pressure sensor	
WMS-25-P-DL	Data logger only, in carrying case	
WMS-25-DL	Data logger in desktop enclosure	
WMS-25-NEMA-DL	Data logger in NEMA 4X (IP67) enclosure	
WMS-25-RG	8" rain gauge, 0.01" tip, 18.2 m (60') cable	
WMS-25-SRG	Small rain gauge, 0.02" tip, 7.6 m (25') cable	
WMS-25-AT	Air temperature sensor, 12.2 m (40') cable	
WMS-25-TH	Temperature/humidity sensor with radiation shield, 12.2 m (40') cable	
WMS-25-RS	Radiation shield	
WMS-25-TP5	1.5 m (5') tripod with 1.5 m (5') mast	
WMS-25-TP3	0.91 m (3') tripod with 1.8 m (6') mast	
WMS-25-WSD	Wind speed and direction sensor	
WMS-25-MC	Spare 2GB memory card	
WMS-25-MCR	Memory card reader	

*Comes complete with 2GB SD card, USB card reader and operator's manual.*

**Ordering Example:** WMS-25-P, portable weather station with WMS-25-MC, spare 2GB memory card.