

# Modular Weather Station

WMS-16 Series  
Starts at  
**\$2390**



- ✓ Durable Modular Design
- ✓ Wind Speed and Direction
- ✓ Air Temperature and Relative Humidity
- ✓ Barometric Pressure and Precipitation
- ✓ Datalogging Ability
- ✓ Tripod, Mast & Solar Radiation Shield

The OMEGA® WMS-16 Modular Weather Station is a computer-based meteorological system designed as a “user friendly” solution for data storage and real-time monitoring of weather conditions. The standard package includes: wind speed, wind direction, air temperature, relative humidity for temp/humidity, barometric pressure, precipitation, data logging, tripod and mast, solar radiation shield, cables and mounts. Additional sensor options include solar radiation, water or soil temperature, auxiliary air temperature, or rain gauge upgrade.

The unique modular system design provides plug-and-play functionality for adding or replacing sensors. The WMS-16 is supplied with an attractive desktop data acquisition module with a memory capacity of 128KB RAM (approximately 45 days at 15 minute intervals with 6 sensors). The WMS-16D data acquisition module includes selectable averaging intervals, 12-bit analog conversion, 0.1% F.S. accuracy, 2 alarm outputs, and optional modem communications. The standard system includes a 120 Vac power adaptor and RS232 serial port for connection to a



WMS-16 modular weather station, \$2190, with WMS-16N optional NEMA 4X enclosure, \$1385.

personal computer. For outdoor or remote applications, a NEMA 4X enclosure and rechargeable battery option is offered.

The optional software package provides a real-time text display, as well as a real-time graphical display, or an ASCII row and column format may be selected. In addition, the data acquisition module is compatible with Windows HyperTerminal software and other terminal programs.

## Specifications Data Acquisition Module Reporting units:

English or metric, all measurements

**Operating power:** 10 to 16 Vdc

**Power consumption:** 60 mA max

**Serial port:** 9-pin d-sub connector,

selectable baud rate, flow control

**Memory:** 128KB RAM, non-volatile

(45 days at 15 minute intervals with

6 sensors)

**Operating Temperature**

**Transducers:**

-40 to 60°C (-40 to 140°F)



WMS-16 modular weather station with optional NEMA 4X enclosure.

**Data acquisition module:**

-40 to 60°C (-40 to 140°F)

**Timekeeping Format:**

MM/DD and HH:MM

**Accuracy:** ±30 seconds/month

**Barometric Pressure**

**Range:** 28.25 to 30.75 inches Hg

**Measurement span:**

2.50 inches Hg (85 hpa)

**Resolution:** ±0.01 inch Hg or ±0.3 hpa

**Altitude offset:** 0 to 10,000 feet, screwdriver adjustable

**Absolute Accuracy:** 0.05 inches Hg

**Wind Speed**

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

**Resolution:** > 0.1 mph

**Accuracy:** ±3% for sustained 2 second average

**Starting threshold:** 0.8 mph

**Time constant:** 2 seconds

**Wind Direction**

**Range:** 0-360°

**Resolution:** > 1°

**Accuracy:** ±3%

**Starting threshold:**

**WMS-16-2E:** 1.2 mph

**WMS-16-5E:** 0.5 mph

**Temperature Range:** -40 to 60°C (-40 to 140°F)

**Resolution:** > .1° F

**Accuracy:** ±1° F

**Relative Humidity**

**Range:** 0 to 100% RH

**Accuracy:** ±3% midscale, ±6% @ 20% & 90% RH

**Rain Gauge**

**Resolution:** 0.01"/tip

**Accuracy:** ±2% up to 3"/hour

**Max rate:** Unlimited

**Solar Radiation (Optional)**

**Sensor:** Photodiode detector

**Spectral Response:** 0.4 to 1.1 microns

**Sensitivity:** 100 mV/1000 w/m2 approx

**Accuracy:** ±5%

**MOST POPULAR MODEL HIGHLIGHTED!**

**To Order (Specify Model Number)**

Model No.	Price	Description
WMS-16	\$2390	Modular weather station; includes the following: WMS-16D, WMS-16P, WMS-16-2E, WMS-16TH, WMS16THS, WMS-16BP, WMS-16RC and WMS-16TM
WMS-16EPA	2485	Modular weather station, same as above, but with WMS-16-5E
WMS-18	2395	Portable weather station in 9 kg (20 lb) 51 x 43 x 20 cm (20 x 17 x 8") carrying case; includes sensors for windspeed, wind direction and temp; also includes datalogger with 128 K RAM and 7 AH battery for up to 5 days between charging with 110 V supplied charger

**Replacement Items**

Model No.	Price	Description
WMS-16D	\$995	Data acquisition module in desktop enclosure, includes a serial cable
WMS-16P	45	115 Vac power supply
WMS-16TH	345	Outdoor temperature and relative humidity sensor, 40' sensor*
WMS-16THS	125	Solar radiation shield for temp/RH sensor
WMS-16BP	265	Barometric pressure sensor 18" cable (sensor always to be near base)
WMS-16RC	165	Rain gauge, includes mounting arm and 40' cable*
WMS-16TM	125	1.5 m (5') tripod and 1.5 m (5') sensor mast [2.4 m (8') total]
WMS-16-2E	285	Wind speed/direction sensor, 40' cable (for WMS-16)
WMS-16-5E	380	High sensitivity wind sensor, 40' cable (for WMS-16EPA)

**Options**

Model No.	Price	Description
WMS-16SR	\$635	Solar radiation sensor, includes mounting arm and 40' cable*
WMS-16T	95	Auxiliary air temperature sensor, 40' cable*
WMS-16TWS	115	Water or soil temperature sensor, 40' cable*
RG-2501/40	390	Tipping bucket rain gauge, 40' cable
WMS-16PE	40	220 Vac power supply
WMS-16MAC	235	Telephone modem, AC powered
WMS-16MDC	460	Telephone modem, DC powered
WMS-16STR	345	Windows graphical software package
WMS-16N-A	1990	Data acquisition module in NEMA 4X enclosure 10 watt solar power charger assembly and 7 A/hour battery
WMS-16N-B	1585	Data acquisition module in NEMA 4X enclosure 110 Vac charger assembly and 7 A/hour battery
WMS-16N-C	1645	Data acquisition module in NEMA 4X enclosure 220 Vac charger assembly and 7 A/hour battery

\* Note: Standard length for all cables between base unit and sensors are 40'.

To order items with longer cable length add a suffix "-Xft" where X is length in feet, and add \$1 per cable per foot per sensor.

Ordering Example: WMS-16N-A and RG-2501/40, modular weather station and tipping rain gauge, \$1990 + 385 = \$2380.

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