

Reliability and accuracy at a low cost-of-ownership

MAWS

- Automatic Weather Stations

Vaisala's new low-cost Mini Automatic Weather Stations (MAWS) combine the company's proven sensor technology with a new compact design. Derived from the same expertise that made MILOS 500 the leading AWS for the synoptic observations, MAWS stations offer an excellent alternative for applications requiring ease of installation and use at a competitive price.

Small MAWS weather stations are new-generation series of automatic weather stations (AWS) for both permanent installations and applications requiring portability. The MAWS offers high performance in a very compact package. These stations are an ideal choice for a wide range of meteorological applications requiring reliable and accurate meteorological measurements at a low cost-of-ownership.

User-friendly weather station

The MAWS is simple to set up. All sensors are equipped with ready-made cables and connectors for easy installation, and all components fit together effortlessly. No special tools are required for installation.

Once the station is assembled and the power is connected, the MAWS is fully operational. Sensor measurements, calculations, data logging and transmission are performed according to a user-configured program.

The operation of the MAWS is

easy to modify with the help of the Windows-based "Lizard" set-up program. This set-up utility provides straightforward basic setup procedures using ready-made templates that guide the user through the simple set-up routines. While easy to use, there are enough set-up options to satisfy even the most demanding user.

Accurate and reliable

Utilizing Vaisala's field-proven design and accurate sensors, MAWS provides features that were previously available only in larger systems. The basic suite of sensors measures wind, pressure, temperature, relative humidity and precipitation. In addition, measurements can be made of soil/water temperatures, solar radiation, net radiation and water level.

The use of a 32-bit CPU, a 16-bit A/D conversion and advanced software ensure the continuous accuracy of the weather information.

The mechanical design is compact, rugged and weatherproof, and can tolerate operation in difficult conditions. The MAWS is made from corrosion-resistant anodized aluminum, with double O-ring seals used in the enclosure. The cables are made from high-quality polyurethane, with molded connectors that are watertight in compliance with the IP68 standard.

The built-in quality control software checks the sensor data against the user-set climatological limits and the step changes between successive measure-

ments. This ensures the reliability of the measured data.

The MAWS series of small AWSs offers low power consumption and high processing capacity in the same unit. The design of MAWS ensures reliable operation with low maintenance costs.

Versatile characteristics

Data output: Convenient preformatted data messages cover most needs, but the data outputs can also be formatted freely to meet the needs of the user's applications. Alarm messages are automatically sent whenever a user-set alarm threshold has been exceeded. Each sensor and calculated parameter has its own alarm settings.

Versatile data logging: MAWS provides easy data logging. Two megabytes of secure flash memory is available for the logging of measured and calculated data and complete reports. Several logging schedules are possible, all user selectable. Various statistical calculations can be made on-site, thus reducing the amount of data to be transmitted or logged.

Calculations: Statistical calculations include minimum, maximum, averages, standard deviation, and cumulative values, calculated over user set intervals. In addition, there is a library of ready-made calculations, including unit conversions, dew point, QNH, QFF, QFE, evapotranspiration, wind chill and heat stress, for example.



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Communication options:

The MAWS weather station has up to five serial ports for interfacing with telemetry, terminals, and displays. One RS-232 port is standard. Two optional plug-in modules can be used for even greater versatility. There is a dual RS-232 module for short distance communication and an isolated RS-485 module for distances up to 1,500 meters. The DMX501 fixed line modem handles longer distances. Data can be accessed on-site with a PC or handheld terminal, or remotely with a radio modem.

Upgrading: The design of the MAWS enables easy system upgrading with new sensors, calculations, output formats, and logging schedules at any time to accommodate changing requirements. The software modifications are made using the Lizard set-up program, with the new sensors simply connected to the free connectors.

Power supply options: The MAWS offers low power consumption. Using a standard 2.2 W solar panel and 1.3 Ah/6 V battery, the MAWS can operate independently for extended periods of time. An extra solar panel and batteries, as well as a mains power supply are all optional.

MAWS stations also interface with UHF and Spread Spectrum radios.

For more detailed information and specifications for the MAWS and its sensors, please visit and bookmark our Web site at:
www.vaisala.com



MAWS201 – Weather Data on the Move

MAWS201 is a highly portable AWS with a lightweight aluminum tripod for rapid and easy deployment. Each leg is adjustable, allowing easy installation on uneven terrain. Thanks to its compact design, the MAWS201 weighs only 15 kg with 5 basic sensors, a solar panel, and an internal battery.

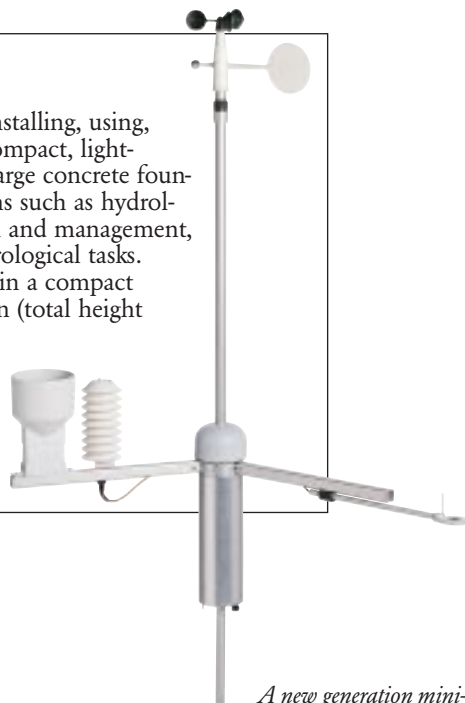
Applications include military support, civil defense, temporary airstrips and remote AWS, as well as environmental impact studies and research, to name a few.

A new generation mobile AWS.

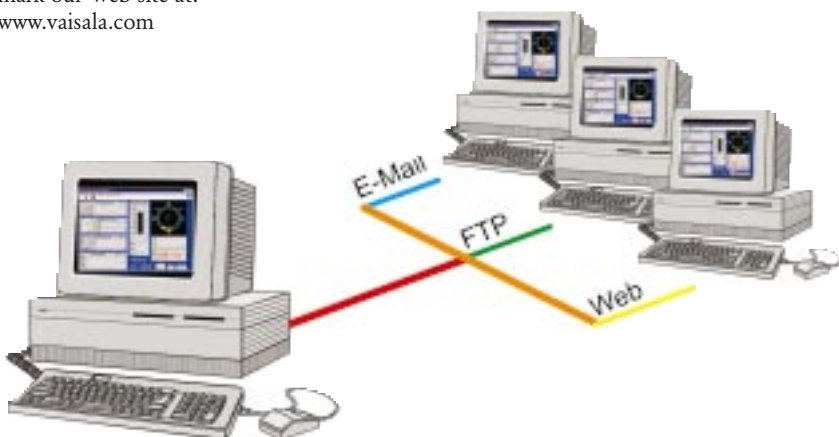
MAWS101 – User-friendly AWS

The MAWS101 saves time and money when installing, using, and maintaining a basic AWS. Thanks to its compact, lightweight design, installation does not require a large concrete foundation. The station is best suited to applications such as hydrology, precipitation networks, energy production and management, building automation and other applied meteorological tasks.

The MAWS101 comes as a stand-alone unit in a compact enclosure or a model suited to mast installation (total height three meters). The stand-alone unit is an excellent choice for customer-specific installations where standard tripod or mast installations are not feasible options. The basic suite of sensors and accessories is the same as with the MAWS201.



A new generation mini-AWS.



YourVIEW graphic user interface software displays the data graphically as well as transferring display snapshot and animations onto the Web. The data messages and files can also be sent automatically via e-mail and FTP transfers.