Easy to Set Up and Configure
The MAWS201 are easy to set up. Every sensor is supplied with a cable and connectors for easy installation. All components fit together easily and no special tools are required. The Vaisala Set-up Software Lizard is provided to simplify the work of configuring the sensor measurements, calculations, data logging schedules and data transmissions. Set-up templates walk you through the initial set-up routines, and a large number of set-up options are available if you want to customize the settings further.

Accurate Sensors
The basic sensor suite measures wind speed/direction, atmospheric pressure, air temperature, relative humidity and precipitation. Optional sensors can be added to measure e.g. soil/water temperature, global and net solar radiation, soil moisture, and water level. The performance of the sensors has been proven in the field in a wide range of environments.

Reliable in all Weather
The MAWS201 operates reliably in all weather: its corrosion-resistant anodized aluminium construction is rugged and weatherproof. The cables are made of high-quality polyurethane with moulded watertight connectors that fulfil the requirements of the IP68 standard.

Features/Benefits
- Portable weather station
- For a variety of applications – meteorological research, environmental impact studies, emergency response, waste management
- Compact, robust and lightweight
- Low power consumption
- Field-proven reliability and accuracy
- Wide selection of sensors and options
- Extensive calculation and data logging capacity

All the inputs are surge protected. The quality control software checks the sensor data against the user-set climatological limits, as well as the step changes between successive measurements. Each statistical calculation has its own validation routine: all can be configured by the user.

Statistical Calculations
The statistical calculations include minimum, maximum, average, standard deviation and cumulative values. All are calculated over user-defined intervals. All extreme values can be time stamped. In addition, a library of calculations is available including unit conversions, dewpoint, frost point, QNH, QFF, QFE, evapotranspiration, sunshine duration, forest fire index, wind chill, heat stress etc.

Versatile Data Outputs
The user can freely configure the data output formats – several ready-made templates are provided to make this easy. The alarm module notifies the user when a measured or calculated value exceeds the threshold values that the user has set. The alarm module can be configured e.g. to send an alarm message, to change timing interval(s), to log data and/or to set an excitation voltage for controlling an external device.
Technical Data

Environmental

Temperature
- Operating: -40 ... +60 °C
- Storage: -50 ... +70 °C
Humidity
- 0 ... 100 %RH

Emissions
CISPR 22 class B (EN55022)

Immunty
- ESD immunity IEC 61000-4-2
- RF field immunity IEC 61000-4-3
- EFT immunity IEC 61000-4-4
- Surge (lightning pulse) IEC 61000-4-5
- Conducted RF immunity IEC 61000-4-6

Options and Accessories

Communication modules
DSU232, DSU486

Mains power supply
QMP213

Solar/mains power supply
QMP201C

Carrying cases for MAWS201
QMM110, QMM120

UHF radio modem set
SATEL3ASET-M2

Sensors

Wind
QMW101/102

Pressure
BARO-IQML

Temperature, relative humidity
HMP155

Solar radiation
QMS101, QMS102, QMN101

Precipitation
QMR101/102

Soil/water temperature
QMT103, QMT110, QMT107

Soil moisture
ML2x

Physical
- Weight example: Portable system with 3 m tripod 15 kg
  (pressure, temperature/humidity and wind sensors)

Basic enclosure
- Material: Anodized aluminum
- Ingress protection: NEMA 4X, IP66
- Dimensions: Diameter 120 mm, height 420 mm
- Weight: 3 kg

General

VAISALA DATA LOGGER QML201

Processor
- 32-bit Motorola

A/D conversion
- 24 bit

Data logging memory
- Internal: 3.3 MB internal flash memory
- Optional: >2GB on compact flash memory card

Sensor inputs
- Analog: 10 analog inputs (20 single-ended inputs)
- Frequency: 2 counter/frequency inputs

Internal channel for BARO-IQML pressure transducer

Serial communication
- Standard: RS-232 and RS-485
- Optional: Two (2) optional plug-in slots for communication modules for increasing the number of serial I/O channels up to 8 pcs

External powering
- Voltage: 8 ... 14 VDC recommended (30 V max.)
- Power consumption: < 10 mA/12V
  (typically with 5 basic sensors)

Powering
- Mains power QMP213 85 ... 264 VAC
- Mains power QMP201C 85 ... 264 VAC
  with 11W solar panel and 7 Ah back-up battery