Automatic Weather Station AWS310
The complete solution for long-term, reliable weather measurements

Weather itself can be unpredictable. The quality, consistency, and reliability of data shouldn't be. The Vaisala Automatic Weather Station AWS310 is built to deliver accurate, real-time weather information for effective short- and long-term forecasting and monitoring of developing severe weather conditions. It's as close to a set-it-and-forget-it solution that you'll find.

Vaisala AWS310 is a complete communication and weather observation solution that automatically measures, processes, and stores meteorological data for professional use. It includes sensors, electronics, telemetry, power supply, and mast — everything needed for a variety of weather monitoring and forecasting applications.

The AWS310 can be customized to specific applications and operated as a standalone unit or as part of a weather observation network. With its ease of maintenance and the long-term Vaisala partnership and support you can depend on, the AWS310 is a powerful tool and an exceptional value over time.

Key benefits

Unmatched accuracy, reliability, and efficiency
The AWS310 is built on the proven dependability of Vaisala sensor technologies and is specifically tailored for long-term, automated weather data collection.

The highest data quality and availability
The AWS310 design emphasizes environmental durability along with built-in power and data capture redundancies — so you get your data no matter what.

The right data delivered the right way
Data can be analyzed remotely using optional NM10 software that facilitates data sharing, visualization, export, and more.

Simplified monitoring and maintenance
A maintenance interface lets you view station information including sensor status and readings, set site-specific parameters, and perform many other functions remotely.

A single source for multiple uses
The AWS310 bundles together all the essential surface observations, creates meteorological calculations and reports, displays real-time data, and saves history files for climatological follow-up.

AWS310 at a glance

Applications

- Facilitating real-time weather forecasting and synoptic data gathering for accurate tracking of adverse weather events.
- Real-time monitoring of critical warning states such as storms and river or tide levels.
- Supporting long-term climatology or research assessments that require stored data and logging.
- Improving severe weather warnings and preparedness to help minimize property damage and loss of life.

Key features

Autonomous, real-time quality control that tests sensor data against minimum and maximum climatological limits and changes between successive measurements.

Centralized remote monitoring and control of a single AWS site or full network via a web-based interface.

Long calibration intervals with minimal on-site configuration for reduced maintenance costs and minimal downtime.

WMO-compliant sensors designed for professional meteorology that deliver validated data and measurement consistency.

Resilient structure and backup systems providing uninterrupted functionality for communications, log reports, and system memory.

Measurements

- Wind speed and direction
- Air temperature
- Relative humidity, dew point
- Precipitation
- Solar radiation
- Visibility and present weather
- Cloud height and sky condition
- Ground temperature and moisture
- Snow depth
- Water level

Why Vaisala?

The industry's most dependable technology

Vaisala surface weather solutions are built on nearly 50 years of industry leadership, and thousands of units are deployed in more than 110 countries. Vaisala has WMO Expert Teams on staff and is an active member of The Association of Hydro-Meteorological Equipment Industry (HMEI).

As one the largest manufacturers of meteorological systems, Vaisala can guarantee timely delivery and shortened lead times with preconfigured systems. The precision and ruggedness of our technology has also been validated time and time again under the harshest conditions.

Support to count on

Vaisala offers lifetime support for all AWS systems, including accredited calibration services, training, and technical support. With decades of experience providing the best technologies and the finest support, Vaisala's philosophy of partnership is unmatched in the industry.

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