

Maritime Automatic Weather Station AWS830

VAISALA

Product Spotlight

Future-proof, reliable and cybersecure real-time met-ocean monitoring

Offshore operations face constant weather-related risks and operational challenges. Accurate, reliable weather and environmental data is essential for ensuring crew safety, operational efficiency and regulatory compliance.

The Vaisala Maritime Automatic Weather Station AWS830 is engineered for the harshest offshore environments. The AWS830 supports a modular, scalable platform for Environmental and Helideck Monitoring Systems and incorporates robust cybersecure design principles to protect critical meteorological and helideck data to ensure reliable operations. It is available in both outdoor and server-rack versions to meet the requirements of exposed on-deck installations in harsh environments as well as protected indoor equipment rooms.



Reliable offshore weather intelligence

AWS830 is engineered for harsh maritime environments, providing comprehensive weather, environmental, oceanographic and motion measurement data in real time. It offers proven performance in extreme conditions, and is maritime approved and compliant with relevant IEC and CAA standards.

Enhanced security and operational flexibility

Modularity of the entire weather monitoring system has been a key design driver for the AWS830 to match your specific operational needs. Standard measurements include wind speed and direction, barometric pressure, air temperature, relative humidity, visibility, cloud height, and helideck motion.

Additional sensors extend capabilities to wave monitoring, ocean current measurement, sea temperature, remote wind profiling, and lightning detection and weather forecasts through Vaisala Elements Helideck Monitoring Software. The system supports both Vaisala and third-party sensors, while automated diagnostic and data validation maintain high data availability.

Built in cybersecurity through the industry-leading Vaisala DMU801 data logger, protects data integrity, while seamless integration with Vaisala Elements Helideck Monitoring Software, ship navigation and automation systems ensures operational continuity. AWS830 incorporates robust cybersecurity features, including secure boot, signed firmware authentication, and end-to-end encrypted communication with Vaisala Elements Helideck Monitoring Software.

Whether supporting offshore wind operations, oil and gas platforms, naval missions, or helideck operations, AWS830 provides the weather and environmental intelligence needed for informed decision-making and enhanced operational safety.

Key benefits

Enhanced crew safety and operational efficiency

Real-time weather and environmental data enables proactive safety decisions and reduces weather related delays.

Regulatory compliance and cost control

Maritime approved and compliant with relevant IEC and CAA standards with automated diagnostics that minimize maintenance.

Informed decision-making

Integrated sensors and Vaisala Elements Helideck Monitoring Software provide complete weather intelligence and real-time alerts.

Future-proof investment

Modular, cybersecure design adapts to evolving operational requirements.

Multiple maritime applications

Serves naval, research and ice-breaking vessels, offshore installation and service vessels, floating platforms, and offshore substations.

Why Vaisala?

Weather and environmental insights are the greatest catalysts for successful maritime operations— from sensors to systems and digital services, Vaisala provides actionable insights that empower stakeholders to confidently meet challenges and harness new opportunities.

Our globally trusted maritime weather solutions enable remarkable efficiency gains, digital transformation, the protection of people and investments while supporting sustainable and responsible operations.

We are scientists and explorers driven by passion, relentless curiosity, and the desire to create a better world. Backed by over 90 years of unmatched scientific leadership, our solutions increase maritime weather awareness and drive innovation.

