

Vaisala Beam Weather Station BWS500

Harness the power of hyperlocal weather intelligence for your port operations



Key benefits

Easy to install, simple to use

Beam Station sets up in just 15 minutes with minimal configuration. Simply install, connect wirelessly and start gathering data instantly.

Secure and reliable

Industry-leading system security and reliability enables a secure gateway between Beam Station and existing observation networks for unprecedented data protection.

Unmatched accuracy, reliability, and efficiency

It's built on the proven dependability of Vaisala sensor technologies specifically engineered for harsh conditions.

Quality data you can trust

State-of-the-art sensors provide highly accurate data on six key weather factors for ports that is levels beyond the competition: wind speed and direction, air pressure, temperature, humidity, and rainfall.

Weather is the key determinant of safe, efficient port operations that requires accurate, localized nowcasting and forecasts. The powerful, flexible and compact Vaisala Beam Weather Station BWS500 provides measurements, data collection and data visualization for monitoring conditions around the port.

Beam Station is the first of its kind to provide weather data on conditions specific to your port. It accurately captures wind speed, wind direction, air pressure, temperature, humidity, and rainfall data for a localized area and delivers it via a secure, wireless data transfer for effective forecasting and planning. Its durability and reliability deliver exceptional ROI with an unmatched affordable cost of ownership.

This compact environmental monitoring station allows you to quickly blanket your port with an easily scalable network of weather monitoring stations. With wireless, cloud-based data communication that doesn't require any data infrastructure, it can be installed even in remote locations and hard to access areas. Beam Station delivers the hyperlocal data needed for the quality observational data necessary to keep your port operations running safely and at peak efficiency.

Beam Station at a glance

Applications

- Ensuring safe operations with real-time wind and weather condition monitoring.
- Facilitating real-time weather observations
- Improving severe weather alerts and protocols to help minimize risk and maximize operations.
- Supporting daily-based operational planning and quicker operational restarts after storms

Key features

Accurate, high-quality data from proven, trusted Vaisala sensors

Compact, easy-to-deploy package suitable for localized and remote locations

A scalable platform that extends from a single, compact station to a network of connected stations

Secure data transfer via encrypted wireless data transfer and integrated SIM card local buffering

Remote access and service with secure data communication

Flexible power options that include solar and AC versatility

Data visualization and open API for third-party integrations



Why Vaisala?

Weather and environmental insights are the greatest catalysts for successful maritime operations. From sensors to systems and digital services, Vaisala technology empowers maritime leaders to confidently meet new challenges and harness new opportunities.

Vaisala is driven by passion, relentless curiosity, and the desire to create a better world, as reflected by our guiding principles for maritime:

1. Master the weather, master the sea

The weather affects maritime operations—whether onshore or offshore—more than any other factor. It also reveals the vast potential of the sea. We enable maritime leaders to harness that potential while navigating pressing challenges driven by climate change.

2. Oceans of insight

The maritime industry is a complex ecosystem, with valuable information to be found everywhere. Our integrated, end-to-end solutions turn that information into practical insights for new competitive advantages.

3. Currents of innovation

Maritime is evolving, and the currents of innovation are taking us to a more sustainable and weather-aware industry. Vaisala markets leading-edge solutions backed by our unmatched legacy of scientific leadership.

4. Champions for sustainability

We help provide a proactive, informed approach to navigating sustainability initiatives and saying ahead of regulatory pressures. Along the way, we protect and strengthen the ecosystems of which we are all part.

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