

VAISALA

Vaisala Met-Ocean System Components

For critical weather conditions



World-Class Vaisala Sensor Technology

Vaisala manufactures the widest selection of original meteorological sensors, systems and displays.



Barometric pressure transmitters

- Vaisala BAROCAP[®] technology ensures excellent long-term stability in various atmospheric pressure measurements, even in outer space
- Up to three pressure sensors for redundancy in critical applications like helidecks
- QNH and QFE pressure compensation useful in helicopter operations



Ultrasonic wind sensors

- Vaisala's unique redundant triangle path technology always ensures turbulent-free measurement
- Robust design enables functioning in rough conditions
- DNV-approval makes Wind Sensor WMT700 an ideal choice for maritime environments
- Body heating available for harsh offshore weather conditions
- The FAA relies on Vaisala WINDCAP[®] technology



All-in-one weather transmitter

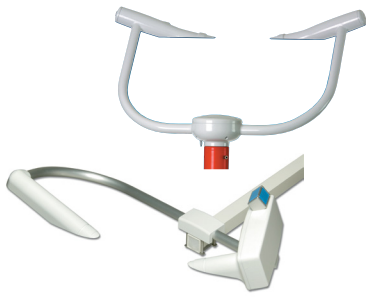
- WXT530 Series Weather Transmitter measures wind speed and direction, liquid precipitation, barometric pressure, temperature and relative humidity
- DNV type approval
- Compact and durable with easy installation (single-bolt mounting)
- The best price to quality ratio for all maritime environments

Benefits

- The widest selection of original meteorological sensors and systems based on more than 85 years of experience
- Extensive track record and global presence
- Easy upgrade of existing WMO (Weather Monitoring System) to CAP437 compatible HMS (Helideck Monitoring System)
- Industry standard, approved by major oil companies
- All sensors are factory calibrated or tested and delivered with calibration certificate or factory test report
- Vaisala systems have interfaces to wide range of sensors from selected partners
- Field proven fully automatic 24/7 operation in all weather conditions and geographical areas

Standards and Regulations

- WMO
- NORSOK
- ICAO Annex 3
- CAP437/CAP746, BSL D5-1
- ATEX
- Lloyd's Register
- DNV
- IEC 60945



Visibility and present weather sensors

- PWD22 is the industry standard in offshore oil and gas
- Low life-cycle costs and less burden due to very low failure rates in the field
- Meets FAA and ICAO specifications for visibility measurement
- Reputation of being the most rugged, weather-proof design which ensures low maintenance and high data availability
- Accurate evaluation of precipitation type ensured by three independent measurements and sophisticated algorithms



Cloud height and amount sensors

- CL31 is the industry standard in offshore oil and gas
- Preferred choice of national MET offices, airports and oil companies worldwide
- Unique single-lens optics technology ensures excellent performance in low altitudes critical to helicopter operations
- Reliable, fully automatic 24/7 operation in all types of weather, including harsh conditions
- Extensive remote self-diagnostics ensure low downtime and cost savings



Oceanographic measurements

- Wave radars for wave height, period, direction, sea level and tide measurement
- Sensors for sea conductivity, temperature and salinity measurement
- Ocean current meters and profilers for current monitoring
- Delivered tested and fully integrated with mounting accessories, mooring frames, offshore cables and shipboard deployment devices



Dynamic motion sensors

- Provide highly accurate real-time motion data for offshore traffic support and vessel dynamic positioning
- Delivered tested and fully integrated with mounting accessories and cable.
- Field proven sensors from world leading manufacturers

Data collection and communication

- Over 30 years of experience in maritime weather observation systems ensuring continuity in partnership
- Reliability and continuity brought to you by the 5th generation of automatic weather stations
- The original and unique fully integrated maritime automatic weather stations resulting in easy project management and continuous support
- Extreme protection for all environments with acid-proof enclosure resulting in low life-cycle costs
- Designed especially for critical maritime weather applications complying with Lloyd's Register and IEC60945



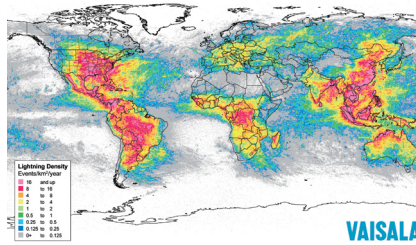
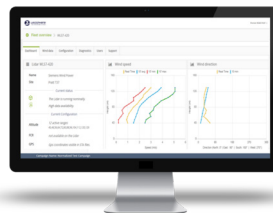


Humidity and temperature transmitters

- Vaisala HUMICAP® technology ensures excellent accuracy and long-term stability
- More than 30 year track record in successful humidity measurements
- The warmed probe technology (prevents condensation) in high humidity conditions and the chemical purge option in high chemical concentration environments help to maintain measurement accuracy
- Intrinsically safe model available

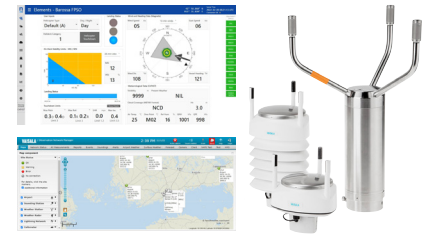
Remote wind monitoring

- WindCube® Offshore lidar provides accurate, actionable wind measurement insights up to 300m, with 20 simultaneous measurement heights per second even in the harshest maritime conditions
- WindCube Insights — Fleet software, an easy-to-use, secure, cloud-based tool providing real-time insights and simple management
- Ruggedized maritime design with an IP67 waterproof casing, making WindCube Offshore suitable for nearly any ship-mounted application
- - APIs and flexible system integrations to accommodate various user configurations and existing digital environments



Lightning detection

- Global Lightning Dataset GLD360 provides real-time lightning data generated by Vaisala owned and operated worldwide network
- Early warnings of upcoming lightning threats
- Improved safety and operational efficiency result in lower downtime
- GLD360 provides accurate and efficient lightning detection with no capital investments needed



Displays and software

- CAA certified Vaisala HMS includes CAP437 compliant helideck monitoring software
- Real-time, secure and shareable data display, reporting tools and critical alarms
- Helideck motion status repeater light signals and software can be configured for compliance with international aviation regulations (Normam-27, BSL D 5-1 and NORSOK)
- Wind and weather displays compatible with WMT700 wind sensor and WXT530 series weather transmitters – IEC 60945:2002 compliant and Type approval certificates from major classification societies
- Vaisala Observation Network Manager NM10 consolidates monitoring data and control of all sites in your weather observation network into a single place with automated alerts and reports

Quality	Credibility	Continuity
Vaisala's systems are flexible and field proven in thousands of installations from pole to pole and even in outer space. Quality and low maintenance need ensure low risk for investments and low cost of lifecycle ownership.	Vaisala is the industry leader with the global sales network combined with the local service ensuring short response and delivery times. The systems are complied with required maritime standards.	Vaisala has been around for nearly 80 years, and will be the reliable partner for weather observations also in the future. Vaisala is the preferred choice among meteorological and aviation customers.

The weather affects maritime operations more than any other factor. We'll help you master it.

Weather and environmental insights are the greatest catalysts for successful maritime operations— onshore and offshore.

From sensors to systems and digital services, Vaisala provides actionable insights that empower stakeholders to confidently meet new 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 clean and responsible operations.

Why Vaisala?

We are scientists and explorers driven by passion, relentless curiosity, and the desire to create a better world. Our 85+ years of innovation and global impact are reflected in our guiding principles for maritime:



Master the weather, master the sea

Vaisala enables stakeholders to harness incredible new possibilities while facing increased severe weather risks driven by climate change. We do this by providing the most advanced weather and environmental insights available anywhere. Guided by our weather measurement expertise, we're advancing maritime operations and empowering today's leaders to master the sea like never before.



Currents of innovation

Maritime is evolving, and the currents of innovation are taking us to a more sustainable and weather-aware industry. Vaisala is the world's most trusted partner for helping maritime leaders navigate this evolution. Fueled by our proven scientific leadership and innovative spirit, we have led the way in providing unparalleled weather and environmental solutions across a multitude of industries for generations. We give maritime stakeholders the most comprehensive weather intelligence available so they can innovate across their entire ecosystem to protect of people, resources, and infrastructures.



Oceans of insight

The maritime industry is a complex ecosystem, with valuable information to be found everywhere. In the atmosphere. In the water. In the movements and topographies of the sea. In complex offshore and onshore hubs of commerce. Vaisala's integrated, end-to-end weather solutions are uniquely capable of transforming oceans of information into concrete, practical insights to enable better decision making. These insights turn uncertainty into confidence, risk into readiness, and potential into power. Our preeminent weather technologies give maritime stakeholders a new competitive advantage: the ability to derive previously unattainable insights from everything around them.



Champions for sustainability

Vaisala partners with maritime stakeholders to support a proactive, informed approach to navigating sustainability initiatives. Our unsurpassed onshore and offshore weather intelligence helps the maritime industry achieve cleaner and more responsible operations, stay ahead of regulatory pressures, and confidently manage risks related to extreme weather. This partnership also strengthens the health of Earth's oceanic ecosystems and the communities of which we are all part.

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vaisala.com/maritime



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