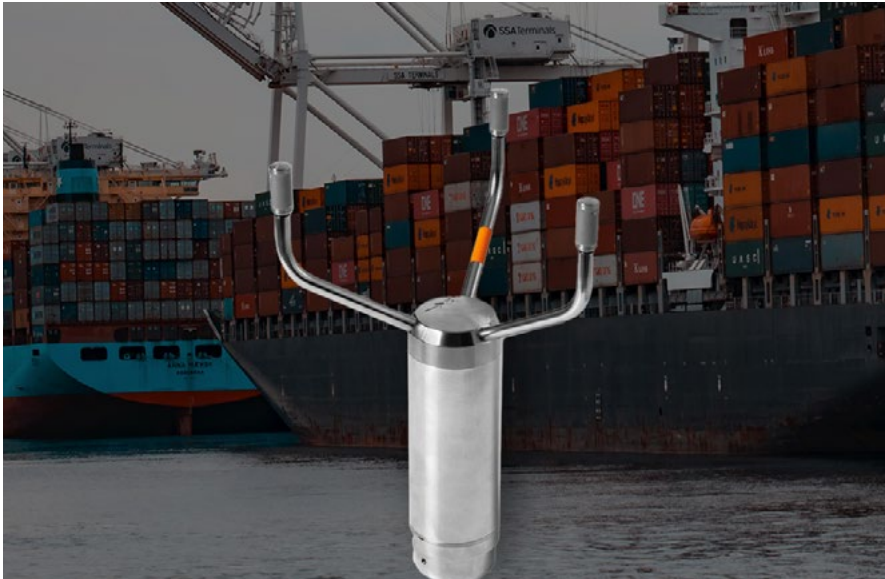


WINDCAP® Ultrasonic Wind Sensor WMT700

Precise, maintenance-free wind measurement under any conditions



Key benefits

Highly durable and maintenance free

The WMT700 has a full stainless-steel structure with welded arms and clear north indication. It has no moving parts and is resistant to natural contamination and corrosion such as salt, dust, or sand — making it a true “set and forget” tool with no need for maintenance or reconfiguration.

Unique design for exceptional accuracy

Exclusive only to Vaisala, the WMT700 uses a unique three-transducer design that enables redundant measurement along six paths for accuracy in all wind directions. It is also highly sensitive to wind speed changes with a starting threshold of virtually zero, and the full measurement range has been validated in third-party accredited wind tunnels.

High data availability

WMT700 sensors are built to work continuously in harsh conditions. The strong and clean signal with redundant measurement paths ensures performance in heavy precipitation conditions with proven field performance in hurricane and typhoon regions.

Easy system integration

As part of a broader weather system, the WMT700 provides self-diagnostics and remote troubleshooting, and user-defined communication profiles. It also supports digital and analog outputs from a single data port.

Accurate wind measurements are integral for safe onshore and offshore maritime operations but capturing this data can be difficult. Wind speeds are never constant from one second to the next. Snow and ice can interrupt wind measurement. Data can be thrown off by turbulence from complex terrain or airflow distortion due to surrounding structures, and even precipitation.

Vaisala WINDCAP® Ultrasonic Wind Sensor WMT700 delivers the highest measurement accuracy in the harshest conditions such as heavy precipitation, severe icing, strong winds, heavy sand and dust and maritime offshore installations.

The WMT700 is a robust, reliable ultrasonic anemometer that provides surface wind measurement, which is WMO, CIMO, ICAO, and CAP 437 compliant, as well as DNV GL and IEC-60945 certified. It is based on ultrasonic technology and time of flight measurement principles, which provides a larger range of highly accurate wind speed and direction information when compared to phase shift principles.

The WMT700 is field-proven and has been successfully deployed by professional meteorological agencies, coastal surveillance networks, offshore oil rigs, shipping vessels, and maritime authorities in more than 120 countries. Optional heaters are available for the transducer only, the transducer plus arm, or the transducer plus arm and body to prevent the build-up of freezing rain, icing, and snow. No other wind sensor performs better and longer in maritime conditions.

WMT700 at a glance

Applications

- Supporting critical operations such as ship navigation systems of icebreakers.
- Detecting dangerous windshear conditions at offshore helidecks and harbor-side helipads.
- Providing real-time harbor and offshore platform wind conditions to facilitate safe passage for inbound and outbound vessels.
- Factoring wind speed and direction into ship navigation, as well as safe cargo loading and unloading protocols.
- Measuring surface winds for weather forecasts, severe weather warnings, and climatological modeling.

Key features

WINDCAP technology with ultrasonic wind sensors delivers accurate, reliable, and redundant wind measurement data over a broad wind speed range and in all directions.

Unique open structure design reduces turbulence and errors in downward wind when compared to closed structures.

Exceptional tilt angle response which is comparable to 3D wind sensors.

Four product models offer differing measurement ranges up to 90m/s (201 mph).

Optional thermostatically controlled heaters in the transducer heads and arms prevent freezing rain and snow buildup for cold climate operation. A model that also adds a heated body is available for the harshest and coldest environments.

Optional bird prevention kit prevents measurement disturbances in locations where birds often perch.



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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