

Improving onboard machinery performance

/ CERTIFIED MEASUREMENTS FOR SHIP INSTRUMENTATION



VAISALA

Performance that measures up



Improving ships' onboard machinery and equipment performance is an ongoing process. By getting precise, detailed and continuous online information you can tackle the challenge, minimize the maintenance costs and machinery downtime – while maximizing system performance and energy efficiency.

For decades Vaisala has been successfully delivering high precision, stable measurements designed to help optimize the most demanding industrial processes. Now, our complete line of transmitters has received the formal type approval certificate for marine applications from the classification society Det Norske Veritas.

Extend equipment lifetime by measuring water contamination in oil online

Water in lubrication and hydraulic systems deteriorates oil performance, causes corrosion and can ruin polar additives. Leading marine engine manufacturers cite water contamination in oil as a significant ship maintenance challenge and have set specific requirements for allowable limits of moisture in oil.

Vaisala's moisture and temperature transmitter MMT330 accurately measures moisture in oil online, giving a real-time picture of the oil's condition. Thus, corrective actions can be taken before water damages critical machine parts.

The MMT330 is compatible with any lubrication and hydraulic oil type and works independent of oil age and temperature.

Prevent downtime in compressed air systems by measuring dewpoint

Compressed air is needed for a range of purposes related to ship automation and thus its reliability is crucial. To keep any compressed air system operating properly it is vital that the air is sufficiently dry. Excess moisture can lead to water condensation, which can result in corrosion, ice formation, and valve and equipment failure.



Vaisala's dewpoint transmitter DMT340 can help to ensure that compressed air is dry enough to secure reliable system operation. Our transmitter offers unparalleled accuracy and long-term stability in demanding onboard compressed air lines. Even water spikes don't affect the Vaisala Drycap® sensor incorporated in the DMT340.

Control engines more efficiently by measuring moisture in air

Humid air is fed into engines both to optimize engine efficiency and to minimize NOx emissions. However, since water condensation must be avoided,



highly precise humidity information is needed.

With its patented sensor technology enabling accurate air measurements near saturation, Vaisala's humidity transmitter HMT337 provides the optimal solution for onboard engine inlet air control systems. It provides accurate humidity readings even after condensing situations, without the need for a sensor drying period normally required by conventional humidity instruments.

Accurate ambient data for NOx emission monitoring

The tightening of NOx emission regulations has led to an increasing need for monitoring and emissions reporting.

Vaisala's pressure, temperature and humidity transmitter PTU300 simultaneously provides all the engine inlet air data needed for the correction of the measured emission values to the standard conditions used in reporting.

You can count on our instruments

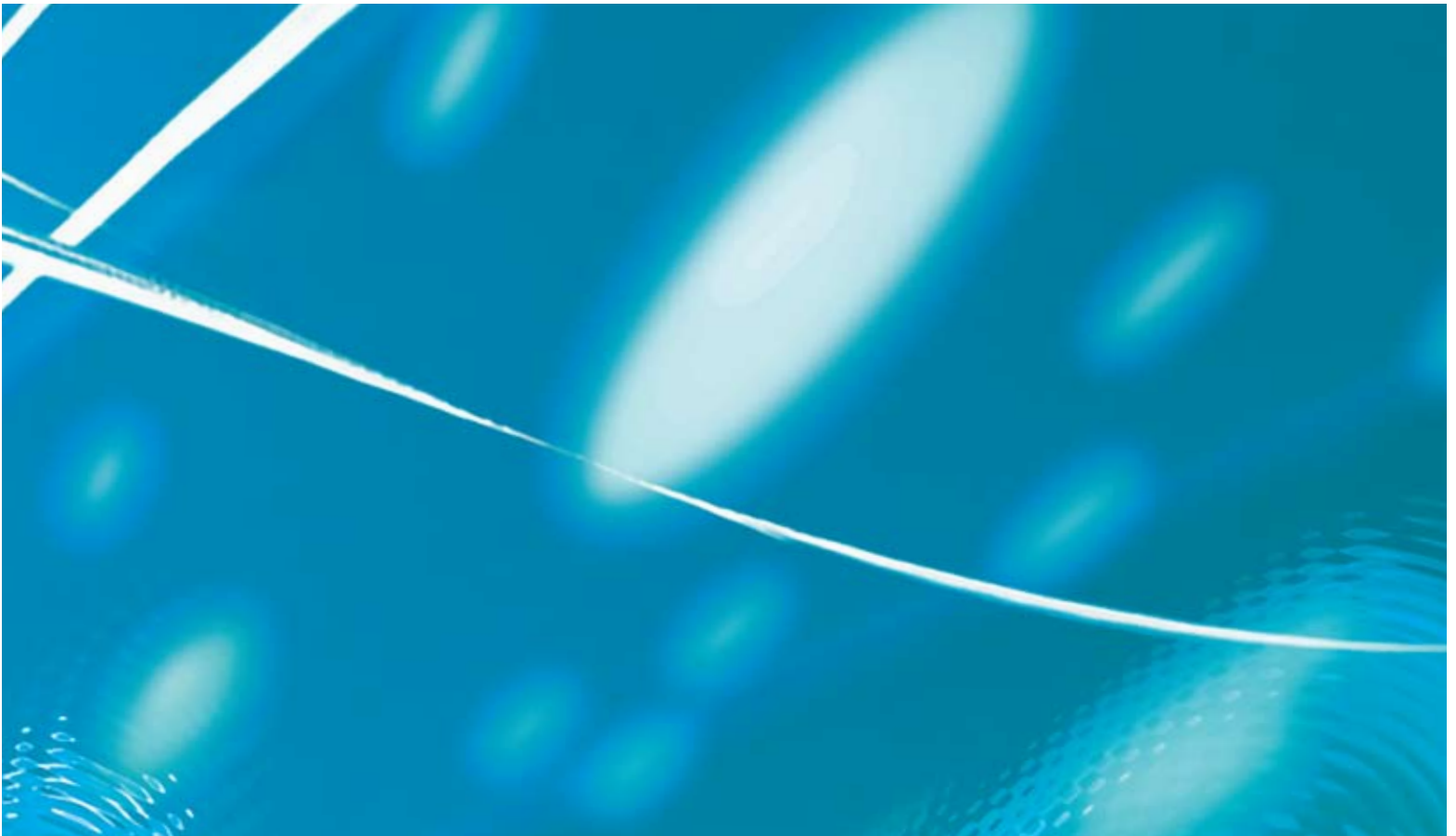
- We are certified with Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards. The certificate applies to the MMT330, HMT330, DMT340 and PTU300 product families, which are proven to withstand the harsh conditions in ship machinery rooms.
- Vaisala sensors are designed and produced in-house in our own cleanroom.
- Vaisala also has a wide range of other products for demanding measurement applications.
- You can have our transmitters up and running in a minute or less – they are designed to be plug-and-play.
- Our transmitters use the same platform with same user interface.
- Robust design and low maintenance requirements of our instruments provide low life-cycle costs.

You can count on us

- We have over 70 years of experience in providing environmental measurement instruments and systems.
- We have more than 20 offices worldwide, a large representative network and thousands of customers in over 120 countries.
- Our standard delivery time is three days. We can ship even custom-made instruments just a day after receiving your order.
- Our customers thank us for professional service, flexibility, and fast response time. We aim to service you locally and in your preferred language.
- We have provided high-quality humidity instruments for over 35 years.



TYPE APPROVAL
NO. A-11440



VAISALA

www.vaisala.com

For more information, visit
www.vaisala.com/shipinstrumentation
or contact us at sales@vaisala.com

Ref. B210895EN-A ©Vaisala 2009
This material is subject to copyright protection, with all copyrights retained by Vaisala and its individual partners. All rights reserved. Any logos and/or product names are trademarks of Vaisala or its individual partners. The reproduction, transfer, distribution or storage of information contained in this brochure in any form without the prior written consent of Vaisala is strictly prohibited. All specifications — technical included — are subject to change without notice.