

Certificate No: **TAA000011S** Revision No:

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Misc. detector

with type designation(s)

MMT330, HMT330, DMT340, PTU300

Issued to

VAISALA OYJ

Vantaa, Finland

is found to comply with

DNV GL rules for classification - Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

| Type | Temperature | Humidity | Vibration | EMC | Enclosure |
|---------------|-------------|----------|-----------|------------|------------------|
| MMT330 | В | В | В | В | B / IP65 |
| HMT330 | В | В | В | В | B / IP65 |
| DMT340 | В | В | В | В | B / IP65 |
| PTU300 | В | В | В | В | B / IP65 |

Issued at Høvik on 2017-12-20

This Certificate is valid until 2022-12-31.

DNV GL local station: Helsinki

Approval Engineer: Ståle Sneen

for **DNV GL**

Digitally Signed By: Nesvåg, Odd Magne Location: DNV GL Høvik, Norway

Odd Magne Nesvåg Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



orm code: TA 251 Revision: 2016-12 www.dnvgl.com Page 1 of

Job Id: **262.1-007527-4** Certificate No: **TAA000011S**

Revision No: 1

Product description

The following types are covered by this approval:

- MMT330 Moisture and temperature transmitter for oil
- HMT330 Humidity and temperature transmitter
- DMT340 Dewpoint transmitter
- PTU300 Combined pressure, humidity and temperature transmitter

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Type Approval of instrument is only valid for units with a valid calibration certificate.

Type Approval documentation

Data sheets: MMT330, B210953EN-D

HMT330, B210951EN-K DMT340, B210952EN-G PTU300, B210954EN-F

User's guides: MMT330, M210733EN-H

HMT330, M210566EN-K DMT340, M210704EN-H PTU300, M210796EN-H

Test report: T08-609A-ENVI, Environmental Test Report, dated 2008-08-05

TR221255-A, EMC Test Report, dated 2013-09-30

VTT-S-05582-08, Vibration Tests, dated 2008-06-24 VTT-S-02491-16, Sine vibration test, dated 2016-06-09 TUO26-044494, Tightness Tests, dated 2004-07-14

Type Approval renewal assessment report for TAA000011S, Espoo 2017-12-15

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Form code: TA 251 Revision: 2016-12 www.dnvgl.com Page 2 of 3

Job Id: **262.1-007527-4** Certificate No: **TAA000011S**

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Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- · Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

Form code: TA 251 Revision: 2016-12 www.dnvgl.com Page 3 of 3