

Certificate No: TAA000032M

# TYPE APPROVAL CERTIFICATE

This is to certify:	
That the Miscellaneous Transmitter	
with type designation(s) Indigo520 transmitter	
Issued to Vaisala Oyj Vantaa, Finland	
is found to comply with  DNV 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.	
Location classes: Temperature B Humidity B Vibration B EMC B Enclosure B / IP66	
Issued at Høvik on 2022-02-17	
This Certificate is valid until <b>2027-02-16</b> .  DNV local station: <b>Finland CMC</b>	for <b>DNV</b>
Approval Engineer: Tommi Juhani Rifaat	
	Trond Sjåvåg Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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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.



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### **Product description**

Vaisala Indigo520 transmitter is universal transmitter compatible with Vaisala Indigo Probes.

Vaisala Indigo520 transmitter is available with 3 power supply options:

Protective extra-low voltage (PELV): 15...35 V DC, 24 AC +-20%
 AC (mains) power version: 100...240 V AC 50/60 Hz
 Power over Ethernet (PoE) version: 50 V DC PoE+, IEEE 802.3at PD

. Vaisala Indigo520 transmitter is compatible with the following Vaisala Indigo probes:

- Humidity and temperature probes: HMP1, HMP3, HMP4, HMP5, HMP7, HMP8, HMP9, TMP1
- Dew point probes: DMP5, DMP6, DMP7, DMP8
- Moisture in oil probe: MMP8

Vaisala Indigo520 transmitter can be installed with barometer module BARO-1.

See User Guide M212287EN for more information.

#### **Approval conditions**

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

### Type Approval documentation

### **Tests carried out**

Applicable tests according to class guideline DNV-CG-0339, August 2021.

## Marking of product

The products to be marked with:

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

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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

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