DNV·GL

Certificate No:
TAA000020G

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Transmitter

with type designation(s)
5300 Series Guided Wave Radar Level and Interface Transmitter

Issued to
Rosemount Tank Radar AB
Mölnlycke, Västra Götalands Län, Sweden

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:

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**C**

Issued at **Høvik** on **2018-09-28**
This Certificate is valid until **2023-09-27**.
DNV GL local station: **Gothenburg**

Approval Engineer: **Jens Erling Bråten**

for **DNV GL**

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.

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Product description
The following models are covered by this certificate:
Rosemount 5300 series two-wire guided wave radar level and interface transmitters including the following models:
- 5301 (for liquid level or submerged interface measurements),
- 5302 (for liquid level and interface measurements).

Place of manufacture
Rosemount Tank Radar AB
Layoutvägen 1, 453 33 Mölnlycke, SWEDEN

Emerson Process Management
Asia Pacific Private Limited
1 Pandan Crescent
Singapore 128461

Emerson (Beijing) Instrument Co., Ltd.
2nd Floor, Building No. 1, South of Shengfang Road, Qian Gao Mi Dian,
Economic Development Zone, Da Xing District, Beijing 102600, CHINA

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
Leads, rigid or flexible, that are used for guiding the radar waves, are not part of the type approval. The installation of these is to be done according to manufacturer's instructions with regards to support points, wire tension etc, in order to avoid resonance frequencies in the leads that could damage the equipment over time.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out
Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product
The products to be marked with:
- manufacturer name
- model name
- serial number
- power supply ratings

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

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE