

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Level Switches**with type designation(s)
NOR 4082, NOR 2593, WIAS

Issued to

Vimex AS
Barkåker, Norwayis found to comply with
DNV GL rules for classification – Ships and offshore units**Application :****Concerns mechanical design of sensors and application as cargo hold ingress protection system.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2018-06-30**.Issued at **Høvik** on **2016-07-07**DNV GL local station: **Sandefjord**Approval Engineer: **Geir Bjørn Alnes**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.

Product description

NOR 4082:

- For topping up alarm, high level alarm and automatic shut down on ships with class notation "Tanker for Chemicals", "Tanker for Liquefied Gas" and "Tankers for Product and Crude oil".

NOR 2593:

- For use in e.g. bilge wells and void spaces.

WIAS:

- For installation as leakage alarm sensors in dry cargo holds according to SOLAS Ch.XII Reg. 12. Based on sensor NOR 2593.
- Cleaning to be carried out after each cargo unloading.

Application/Limitation

Inspection and approval concerning intrinsic safety to be carried out in each case.

Type Approval documentation

Tests carried out

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

Testing of WIAS:

- According to DNV interpretation of MSC 77/26/Add.1 ANNEX 5 Appendix (level switch assembly only). See report Forny-A/1262.
- 20 day test for IP68, witnessed by DNV Sandefjord.

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



Job Id: **262.1-005154-9**
Certificate No: **TAA00000G0**

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE