

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Indicator

with type designation(s)

NS 25/15 AM, NS 25/25 AM,, NS 25 AM G1/2, , Electrical contacts:, MKS 1/K, MKS 1/W, MKS 2/K,, MKS 1/W-L24V

Issued to

Bühler Technologies GmbH
Ratingen, Germany

is found to comply with

DNV GL rules for classification – Ships

Application :

Location classes:

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

Type	Temperature	Humidity	Vibration	EMC	Enclosure
NS 25/15 AM, NS 25/25 AM, NS 25 AM G1/2	C	B	A	N/A	B
Electrical contacts: MKS 1/K, MKS 1/W, MKS 2/K, MKS 1/W-L24V	C	B	A	N/A	B

This Certificate is valid until **2021-05-09**.

Issued at **Hamburg** on **2016-05-10**

DNV GL local station: **Essen**

Approval Engineer: **Marco Rinkel**

for **DNV GL**

Duy Nam Le
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

The Type Approval covers the following products:

Level indicators: NS 25/15 AM, NS 25/25 AM, NS 25 AM G1/2
Electrical contacts: MKS 1/K, MKS 1/W, MKS 2/K, MKS 1/W-L-24V

All combinations of level indicators and electrical contacts.

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

Application/Limitation

When used on tanks containing flammable liquids in engine spaces it is required to have either self closing valves or remotely operated quick closing valves between the gauge and the tank flange. Level indicator's tube to be fastened to tank with brackets having a maximum distance of 1200 mm.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guideline DNVGL CG-0339, November 2015

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE