DNV·GL

Certificate No:
TAP00001H3

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Magnetic Liquid Level Indicator

with type designation(s)
JZC1-Hxxx-00, JZC2-Hxxx-00

Issued to
Nantong Jiuzhou Ship Mechanical Fittings Co., Ltd.
NANTONG, JIANGSU, China

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

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

Type:	**Design:**
JZC1-Hxxx-00	**Magnetic level gauge.**
JZC2-Hxxx-00	**Magnetic level gauge with jacket heating.**

Issued at **Hamburg** on **2019-01-03**
This Certificate is valid until **2024-01-02**.
DNV GL local station: **Shanghai**

for **DNV GL**

Approval Engineer: **Andrii Pishchanskyi**

Olaf Drews
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

Type JZC1-Hxxx-00 magnetic level gauge is side mounted and no self-closing valves at the ends are fitted.
Type JZC2-Hxxx-00 magnetic level gauge is side mounted and no self-closing valves at the ends are fitted. It is fitted with jacket heating.

The specification of magnetic level gauge is as follows:

Characteristic	**JZC1-Hxxx-00**	**JZC2-Hxxx-00**
Maximum allowable working pressure of working medium [bar]	2	2
Maximum temperature of working medium [°C]	80	170
Measurement range [mm]	500 - 5500	500 - 5500
Maximum allowable working pressure of heating steam [bar]	N/A	7
Maximum temperature of heating steam [°C]	N/A	170

Magnetic level gauge consists of the following main components:

Component	**JZC1-Hxxx-00**		**JZC2-Hxxx-00**	
	Material	**Remark**	**Material**	**Remark**
Body	1Cr18Ni9Ti	Stainless steel	1Cr18Ni9Ti	Stainless steel
Float	1Cr18Ni9Ti	Stainless steel	1Cr18Ni9Ti	Stainless steel
Flanges	1Cr18Ni9Ti	Stainless steel	1Cr18Ni9Ti	Stainless steel
Indicator	1050	Aluminium alloy	1050	Aluminium alloy
Heating jacket	N/A	N/A	1Cr18Ni9Ti	Stainless steel
Sockets for steam inlet and outlet	N/A	N/A	1Cr18Ni9Ti	Stainless steel

Application/Limitation

Magnetic level gauges are type approved for installation as means of level indication for tanks containing flammable liquids with flash point above 60 °C on ships as per DNVGL-RU-SHIP Pt.4 Ch.6 Sec.4 11.6.2 (edition January 2018).

Magnetic level gauge shall be fitted with a self-closing valve at each connection to a tank.

Magnetic level gauges are not permitted for tanks containing flammable liquids on passenger ships as per DNVGL-RU-SHIP Pt.4 Ch.6 Sec.4 11.6.4 (edition January 2018).

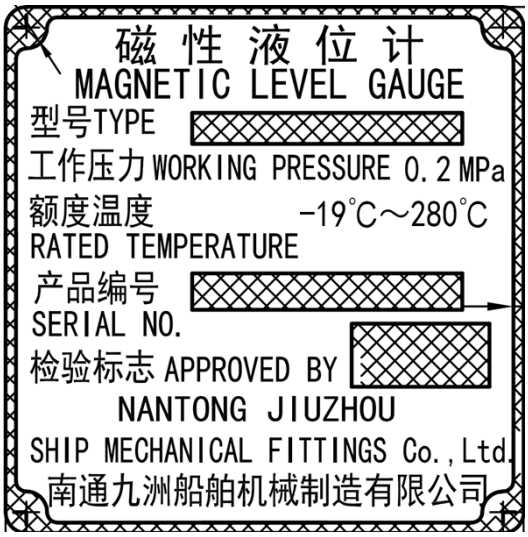
The selection and installation of a magnetic level gauge shall be as per the manufacturer’s instructions.

Type Approval documentation

Tests carried out

Marking of product

For traceability to this Type Approval each gauge shall bear at least legible and durable marking on the body or on a type plate fixed securely to the body as follows:



Periodical assessment

A condition for retention of the TA certificate in its validity period is that periodical assessments are successfully carried out. The objective of the periodical assessment is to verify that the conditions for the TA have not been altered.

Main scope of the assessment:

- Verification of the production and quality control system;
- Review of quality control documentation of recent deliveries;
- Review of drawings in production to verify any design changes which may have an impact on data specified in the type approval certificate, performance and range of application;
- Verification of the product marking.

Refer to DNVGL Class Programme CP-0338 for the scope of the periodical assessment.