



CERTIFICATE NUMBER
16-HG1476897-PDA-DUP

DATE
25 Jan 2016

ABS TECHNICAL OFFICE
Hamburg Engineering Department

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
KFG LEVEL AG

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: **Level Indicator, Magnetic Float Type**

Model: **AL..., AV..., ALD..., AVD..., AP..., ABA..., AS..., K..., WG..., GU...**

This Product Design Assessment (PDA) Certificate 16-HG1476897-PDA-DUP, dated 25/Jan/2016 remains valid until 24/Jan/2021 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

Ulf Numirski
Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5 9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

KFG LEVEL AG

RUESSENSTR. 4

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Switzerland

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Fax: +41 (0)41 766 62 83

Email: info@kfg-level.com

Web: www.kfg-level.com

Tier: 2 - PDA Issued

Product: Level Indicator, Magnetic Float Type**Model:** AL..., AV..., ALD..., AVD..., AP..., ABA..., AS..., K..., WG..., GU...**Intended Service:**

Liquid level gauging.

Description:

Magnetic Float switches work according to the float principle with magnetic transmission (permanent magnet / reed switch).

Certified safe types: II 1/2G Ex c ia IIC T6 to T3/ T4 Ga/Gb, II 2G Ex c d IIC T6 to T4 Gb, II 1/2G Ex c ia IIC T6 to T3 Ga/Gb, II 2D Ex c tb IIIC T80°C to T190°C Db IP6X, II 2G Ex c d IIC T6 to T4 Gb, II 2D Ex c tb IIIC T80°C to 190°C Db IP6X, I M1 Ex c ia T150°C Ma (SEV 11 ATEX 0188)

(For more details please see attachment)

Rating:

150 V AC/DC / 0.5 A/ 10 VA, 230 V AC/DC 1 A/ 100 VA, 230 V AC/ 60 V DC/ 1 A/ 40 VA

Max. Working Pressure: 175 bar.

Max. Working Temperature: 190° C.

Degree of Protection: IP65.

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

ATEX certified equipment is not to be installed in hazardous areas on U.S. vessels unless it can be proven to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S. Coast Guard.

Comments:

Each particular installation is to be approved in conjunction with the relevant system, tank arrangement and hazardous zone.

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. 1003 DOK_6045, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 DOK_6046, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 DOK_6047, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Sketch1003_0302, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Sketch1003_0434, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1002_021, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1002_023, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1002_024, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1002_025, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1003_177, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1003_191, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003 Zchn1003_374, Dimension Drawing, Revision: -, Pages: 1

Drawing No. 1003_150, Catalog, Revision: -, Pages: 1

Drawing No. SEV 11 ATEX 0188, ATEX Certificate, Revision: -, Pages: 1

Terms of Validity:

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STANDARDS

ABS Rules:

2016 Steel Vessel Rules, 1-1-4/7.7, 1-1-Appendix 3 and 4, 4-6-2/ 9.11.3, 4-6-4/ 13.5.6(b)/ 15.3.4(d), 4-8-3/ 1.7/ 1.11.1/ 1.17/ 13, 4-9-8/ 7/ 13

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA