

Marine & Offshore

Certificate number: 07176/E0 BV File number: AP2990 Product code: 3741H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to Barksdale GmbH Reichelsheim - GERMANY

for the type of product LEVEL TRANSMITTERS

> Level Switches Type: UNS.. series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships. EC Code: 31

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 15 Mar 2023

For Bureau Veritas Marine & Offshore, At BV HAMBURG, on 15 Mar 2018, Dirk Hoepfner

Hoeffor



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: http://www.veristarpm.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=asdhcbyciu BV Mod. Ad.E 530 June 2017 This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

<u>1. PRODUCT DESCRIPTION:</u>

Level Sensors - Magnetic Level Switches comprising:

Series	Туре	Remarks	
Multi Level	UNS-1000-S-VA(-MS)/xx	Brakets spacing: 500 mm max. IP67	
	UNS-2000(-2100-Ex)-S-VA/xx	Max. length 1500mm with protection tube or 1000mm without protection tube Guide tubes longer than 1500 mm (1000 mm) to be fixed by an additional	
		holder The distance between fixing points must not exceed 2500mm (2000mm)	
		Degree of protection: II	P67
Bilge Float	UNS-S-VA(-MS)/xx	Bilge Float UNS-S-VA/SBx-VA52/xx(-UAD-LSB), Bilge Guards Reed contact rating n/o, n/c:	
	UNS90-S-VA/xx		
		25	50V AC/DC, 3A, 100VA/W
		23	30V AC/DC, 2A, 40VA/W Bilge Guard
		Reed contact rating c/o:	
		25	50V AC/DC, 1A, 60VA/W
Bilge Guard	UNS-S-VA/xx	Degree of protection:	
	UNS-S-VA/SBy	UNS-S-VA II	P54
	UNS-VA/SBy		P67, IP68

xx = Mechanical mounting, Electrical connection, Float type, etc...

y = 4 or 5

2. DOCUMENTS AND DRAWINGS:

- Specification UNIMESS Version 01.1997; UNIMESS design drawings; 12/04 UNS US 04/1 Note: Documents filed in AP 2990.

For E0 version:

- Bilge Guard: 923-1829 index: D, 923-1831 index: D, 923-1085 rev. B dated 06.03.18, 923-1086 rev. B dated 06.03.18

3. TEST REPORTS:

RMS: - 8-09/95 dated 05 October 1995 **PTB:** - PTB Nr. Ex-95.D.2010 dated 02.02.1995 **ISSeP:** - ISSeP08ATEX016X/1 dated 22.02.2013 **For E0 version: RST:** -P50-18-0091_1-en dated 23/02/2018

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.

4.3 - Bureau Veritas Environmental Category, EC Code: 31.

4.4 - May not be used for flammable oil tanks in passenger ships where penetration below tank top would be necessary.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **Barksdale GmbH** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Barksdale GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

Barksdale GmbH Dorn-Assenheimer Strasse 27 61203 Reichelsheim GERMANY

5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Equipment type or model identification.
- Date of manufacture and/or serial number.
- Ex marking, as relevant

7. OTHERS :

7.1- It is the responsibility of Barksdale GmbH - GERMANY to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate N° 07176/D0 BV issued on 04 Feb 2014 by the Society.

*** END OF CERTIFICATE ***