



MARINE DIVISION

Certificate number: 07177/D0 BV

File number: AP 3003

Product code: 3714H

*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 GAUGES / INDICATORS

Level Indicators and Accessories  
Type: BNA-S.. series

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

*This certificate is issued to attest that BUREAU VERITAS 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: 04 Feb 2019**

For BUREAU VERITAS,

At BV HAMBURG, on 04 Feb 2014,

Dirk Hoepfner



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. 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 Division available on the internet site [www.veristar.com](http://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 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 SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

Level Indicators with Magnetic Rotors and accessories comprising:

Product	Type	Remarks
Level Indicator:	BNA-S21/-S22-xx	PN 25 Bar / 300 lbs - Macrolon or Aluminium indication rail
	BNA-S31/-S32-xx	PN 16 Bar / 150 lbs - Macrolon or Aluminium indication rail
	BNA-S35/-S36-xx	PN 16 Bar / 150 lbs - Macrolon or Aluminium indication rail
	BNA-S41/-S42-xx	PN 40 Bars / 600 lbs - Macrolon or Aluminium indication rail
Limit Switch:	GK01 / GK03	Contact rating: 220V AC, 0.8A, 60VA - 220V DC, 0.8A, 40W - IP67 / IP65
Transmitter:	XM	100kOhm Potentiometer
	XM <sub>i</sub>	Ex 100kOhm Potentiometer, to be used with Intrinsic Safety Equipment
Indicator:	USE 3000 (XM)	
	USE 3200 (XM <sub>i</sub> )	

xx = Side connections, Indicator length, Float type, Isolation, Limit Switch, Analogue Output, etc...

When used in heavy fuel oil systems, additional heating is recommended.

### 2. DOCUMENTS AND DRAWINGS:

- Operating Instruction Version 01.1997; UNIMESS design drawings; 06/05 BNA US 01/1

Note: Documents filed in AP 3003.

### 3. TEST REPORTS:

RMS: - 4-11/95 dated 30 November 1995.

### 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.

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 trade mark.

- Equipment type or model identification.

- Date of manufacture and/or serial number.

### 7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Barksdale GmbH - Germany**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 07177/C0 BV issued on 13 Aug 2008 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*