



Marine & Offshore

Certificate number: 07177/E0 BV

File number: AP3003

Product code: 3718H

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 GAUGE - MAGNETIC TYPE

Bypass 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 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: 10 May 2024

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 10 May 2019,

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 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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

BNA-S... series are bypass level indicators with magnetic float, indicator rail and accessories.

Product	Type	Remarks
Level Indicator:	BNA-S21/-S22-xx BNA-S31/-S32-xx BNA-S35/-S36-xx BNA-S41/-S42-xx	PN 25 Bar / 300 lbs - Macrolon or Aluminium indication rail PN 16 Bar / 150 lbs - Macrolon or Aluminium indication rail PN 16 Bar / 150 lbs - Macrolon or Aluminium indication rail PN 40 Bars / 600 lbs - Macrolon or Aluminium indication rail
Limit Switch:	GK01 GK03	220V AC, 0.8A, 60VA - 220V DC, 0.8A, 40W 230V AC, 1.0A, 60VA - 230V DC, 1.0A, 60W
Transmitter:	XM XMi	100kOhm Potentiometer Ex 100kOhm Potentiometer, to be used with Intrinsic Safety Equipment
Indicator:	USE 3000 (XM) USE 3200 (XMi)	

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 Instructions 923-0664-Fdated 29.09.2016 and 923-1638-F dated 11.01.2019; Catalogue 923-0870-F
- 923-1885 index D; 908-0412 rev. A dated 17.04.19; 908-0260 rev. C dated 30.10.18; UNIMESS design drawings

Note: Documents filed in AP 3003.

3. TEST REPORTS:

- RMS: 4-11/95 dated 30 November 1995
- MPA: 20190078/02 and 20190078/03 dated 03.04.2019

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 - 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.

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° 07177/D0 BV issued on 04 Feb 2014 by the Society.

*** END OF CERTIFICATE ***