

MARINE DIVISION

17 bis Place des Reflets - La Défense 2
92400 Courbevoie - France

Tel. 33 1 42 91 52 91
Fax. 33 1 42 91 28 94
www.veristar.com



Certificate number: 07177/C0 BV

File number : AP 3003

Product code : 3714H

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

TYPE APPROVAL CERTIFICATE

as per Bureau Veritas Classification Rules

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

Regulations and standards :

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 of the Regulations and standards mentioned above.

This certificate is valid until : 13 Aug 2013

At Paris la Défense, on : 13 Aug 2008

For BUREAU VERITAS,
By order of the Secretary

Approval office

Local office : BV HAMBURG
Surveyor : D. Hoepfner

L.COURREGELONGUE



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. 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: 220 VAC, 0.8 A, 60 VA - 220 VDC, 0.8 A, 40 W - IP67 / IP65
Transmitter:	XM	100 kOhm Potentiometer
	XM _i	Ex 100 kOhm Potentiometer, to be used with Intrinsic Safety Equipment
Indicator:	USE 3000 (XM)	
	USE 3200 (XM _i)	

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 :

Barksdale:

Specification BARKSDALE Version 01.1997

UNIMESS design drawing.

Bypass Level Indicators, Document No. 06/05 BNA US 01/1

3. TEST REPORTS :

RMS: Test Report No. 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**

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **BNA** Level Indicators and **Accessories** are to be manufactured, examined and tested by **Barksdale GmbH** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **Barksdale GmbH** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **Barksdale GmbH** has declared to Bureau Veritas that the type of product described in this certificate are manufactured at the following production site:

**Barksdale GmbH
Dorn-Assenheimer Strasse 27
D - 61203 Reichelsheim
GERMANY**

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

6. MARKING OF PRODUCT :

- Maker's name or trade mark,
- Serial number of the units
- Equipment type number or model identification under which it was type-tested

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:

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will accept full responsibility for informing shipbuilders, shipowners 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/B0 BV issued on 13/05/2002 by the Society.

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