



Marine & Offshore
Division

Certificate number: 22435/B0 BV

File number: AP 4047

Product code: 3843H

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

PRESSURE SWITCH
X1T and 9000 Series.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 33

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: 19 Jan 2020

For BUREAU VERITAS,

At BV HAMBURG, on 19 Jan 2015,

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 & Offshore Division 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 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.

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BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **X1T** and **9000 series** are pressure switches for marine applications.

1.1 - Main characteristics:

	X 1 T	9000 Series
Pressure Range:	15...100 to 30...400bar	0.2...2 to 40... 400bar
Rated Voltage:	250V AC / 250V DC	250V AC / 24V DC
Operating Temperature:	-25°C to 55°C	-10°C to 55°C
Electrical Connection:	Plug (DIN 43650)	EN 175301-8013-A plug (DIN 43650)
Pressure Connection:	G1/4" internal/female or flange	G1/4" female thread DIN ISO 228-1or flange
Ingress Protection Index:	IP 65	IP 65
Use in hazardous areas:	see ISSeP 08 ATEX 016 X/1	n/a
Housing material:	aluminium	stainless steel or aluminium

1.2 - Electrical ratings:

Type	Silver contacts	Inductive load	Resistive load	Gold-plated contacts	Ex
X1T	30V DC 250V DC 250V AC	3.0A 0.03A 5.0A	10.0A 0.25A 10.0A	U _{max} = 30V DC I _{max} = 400mA P _{max} = 0.12VA	U _{max} = 28V I _{max} = 50mA
9000 Series	250V AC 24V DC	2.5A 1.0A	10.0A 6.0A	N/A	N/A

2. DOCUMENTS AND DRAWINGS:

Data sheets: - 923-1961 Rev. A dated 05.08.14; 923-1647 Index E; 02/02 KDM-ENG 02/2

Operating instructions: - 923-1650 Index A dated 24.09.2008; 923-0168 Index B dated 01.08.2002.

3. TEST REPORTS:

Institut für BFSV an der HAW Hamburg:

- 6761/09, dated 02.07.2009; 4945/02, dated 26.07.2002.

BFSV Hamburg Institute of Packing GmbH:

- 0973/14 dated 17 October 2014;

ISSeP, Colfontaine, Belgium:

- ISSeP08ATEX016X/1 dated 22.02.2013

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: 33.**

4.4 - Bureau Veritas Rules Part C, Ch 1, Sec 10 apply for pressurized parts made of aluminium or aluminium alloys if they are used in piping systems for flammable liquids or fire-extinguishing systems.

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.
- Ex marking, as relevant

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° 22435/A1 BV issued on 05 Nov 2012 by the Society.

*** END OF CERTIFICATE ***