



Marine & Offshore

Certificate number: 54128/A0 BV

File number: AP4876

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

BD SENSORS GmbH

Thierstein - GERMANY

for the type of product

LEVEL TRANSMITTERS

Level transmitters LMK 458, LMK 458H

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 43

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: 13 Nov 2024

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 13 Nov 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 electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=nxxpsfuy2z>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

LMK 458 and **LMK 458H** are Hydrostatic level transmitter with ceramic-capacitive sensor element used in water tanks.

1.1 - Specifications:

Power Supply: 24 VDC
 Nominal Pressure range: LMK 458: 0.04 ... 20 bar
 LMK 458H: 0.06 ... 20bar
 Output: LMK 458: 4...20 mA
 LMK 458H: 4...20 mA HART communication
 Housing: Stainless steel, Copper-Nickel-alloy
 Design type: Submersible, Flange, Screw-in
 Degree of protection : IP68

2. DOCUMENTS AND DRAWINGS :

- LMK458_E_080118 dated 23.10.2017; LMK458_H_080118 dated 19.01.2019; DSK701C_E_03/2011,
 - EI.060.004 dated 24.1.2008; EI.060.002 dated 4.12.2007; EI.060.004 dated 24.01.2008
 - EI.090.002 dated 3.4.2008; EI.090.005 dated 12.12.2007; EI.090.004 dated 3.12.2007
 - ST.360.004 dated 2.12.2002; ST.360.002 dated 2-Dec-2002; ST.360.005 dated 2.12.2002
 - ST.670.002 dated 05.11.2007; ST.670.004 dated 05.11.2007; ST.670.005 dated 05.11.2007
 - EI.160.004 dated 25.04.2013; EI.160.002 dated 19.1.2011
 - IBExU10ATEX1186 X and IBExU07ATEX1180 X

3. TEST REPORTS :

EMV Services:
 - 09/8152-2-1 dated Feb. 2, 09; 07/7047-4 dated March 26,07
 Paconsult GmbH:
 - 07-1481 dated March 21st 2007
 TÜV NORD CERT GmbH:
 - 10/1068-1 dated Jun. 24, 10
 Car Synergies GmbH:
 - P05-0030 dated 02.03.2005

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: 43**
 4.4 - Ex-certification is not covered by this certificate. Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.
 4.5 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above mentioned products are to be supplied by **BD SENSORS 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 - **BD SENSORS 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:

BD SENSORS GmbH
BD-Sensors-Straße 1
95199 Thierstein
Germany

BD SENSORS s.r.o
Hradistska 817
CZ-687 08 Buchovice
Czech Republic

6. MARKING OF PRODUCT :

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

7. OTHERS :

- It is the responsibility of **BD SENSORS GmbH** 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.

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