

## **Type Approval Certificate**

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER BD SENSORS GmbH

BD-Sensors-Str. 1 95199 Thierstein Germany

**DESCRIPTION** Pressure transmitter

TYPES DX14A-DMK456, DMK 458\*, DX14A-DMK458, DMK 457\*,

DX19-DMK 457\*, DMP 457\*, DX19-DMP 457\*, 17.457G, 18.457G, 26.457G and 30.457G

APPLICATION Marine, offshore and industrial applications for use in environmental

categories ENV1, ENV2, ENV4 and ENV3 (types marked with "\*") and as defined in Lloyd's Register's Type Approval System, Test Specification

Number 1 - 2002.

STANDARD Manufacturer's specification

Certificate No. 13/20055 (E1)

Issue Date 21 June 2019

Expiry Date 25 November 2023

Thorsten Wolff
Hamburg Technical Support Office
Lloyd's Register EMEA



Sheet 1 of 2

Thorsten Wolff Hamburg Technical Support Office Lloyd's Register EMEA

Lloyd's Register EMEA 71 Fenchurch Street, London EC3M 4BS

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RATINGS Power supply: 24 V DC

Output: 4-20 mA

Pressure ranges: DX14A-DMK456 0-0.04 to 0-20 bar

DMK 458\* 0-0.04 to 0-20 bar DX14A-DMK458 0-0.04 to 0-20 bar DMK 457\* 0-0.4 to 0-160 bar DX19-DMK 457\* 0-0.4 to 0-160 bar DMP 457\* 0-0.1 to 0-600 bar DX19-DMP 457\* 0-0.1 to 0-600 bar 17.457G 0-6 to 0-600 bar 18.457G 0-0.1 to 0-6 bar 26.457G 0-1 to 0-160 bar 30.457G 0-1.6 to 0-250 bar

OTHER CONDITIONS Ratings for application in hazardous areas are to be obtained from the

applicable Ex Certificates.

PLACES OF PRODUCTION BD SENSORS GmbH

BD-Sensors-Str. 1 95199 Thierstein Germany

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

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HTS/ETS 38383-19 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Sheet 2 of 2

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# Design Appraisal Document

Lloyd's Register EMEA **Hamburg Technical Support Office** Überseeallee 10 20457 Hamburg Telephone +49 (0)40 34 97 00 10-100 E-mail: hamburg-technical-support@lr.org

Date 21 June 2019

Please quote this reference number on all future communications

HPC 1862141/38383-19/TW/AC

THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2017 ISSUED TO: BD SENSORS GMBH, THIERSTEIN FOR: PRESSURE TRANSMITTER TYPE APPROVAL CERTIFICATE NO. 13/20055 (E1)

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System Procedure TA14 and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

Unnumbered	Application Checklist	23.11.2018
HTS/ETS 29021-13	Marine Design Appraisal Document for Certificate No. 13/20055	26.11.2013
HPC1862057	Production Quality Assessment Form	26.06.2018
PRA1900136 /	Production Quality Assessment Form	28.05.2019
PRJ1109991632		
PRA1900136/1	Visit Report	28.05.2019
08.928.920	CSN EN ISO 9001:2016 Certificate	02.08.2018
Unnumbered	EU Declaration of conformity	22.03.2019
Unnumbered	Manufacturer's statement	12.04.2019



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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Date **21 June 2019** 

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### Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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# Transmitters/Transducers

Part 3

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
BD SENSORS GmbH BD-Sensors-Str. 1 95199 Thierstein GERMANY	Pressure transmitter	Power supply Vdc: 24 Output (mA): 4-20	ENV1, ENV2, ENV3("*"), ENV4 (2002)	Expires: 25 November 2023 Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates.	13/20055 (E1)
	DX14A-DMK456 DMK 458* DX14A-DMK458 DMK 457* DX19-DMR 457* DMP 457* 17.457G 18.457G 26.457G 30.457G	Pressure range (bar): 0-0.04 to 0-20 0-0.04 to 0-20 0-0.04 to 0-20 0-0.4 to 0-160 0-0.4 to 0-160 0-0.1 to 0-600 0-0.1 to 0-250 0-0.250			

