

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.

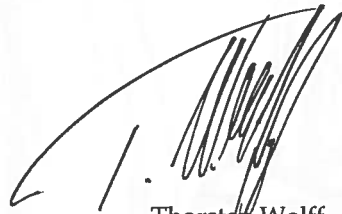
This certificate is issued to:

PRODUCER	BD SENSORS GmbH
PLACE OF PRODUCTION	BD-Sensors-Str. 1 95199 Thierstein GERMANY
DESCRIPTION	Level probe
TYPES	LMK 458*, DX14A-LMK458*, LMK 458 H*, DX15A-LMK458 H*, EP 500 Software release: 2.2 (LMK458 H) 2.0 (DSK 701 C)
APPLICATION	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3 and ENV4 (types marked with "**") as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 - 2002.
STANDARD	Manufacturer's specification
OTHER CONDITIONS	Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. HTS/ETS 29022-13 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	13/20056
Issue Date	26 November 2013
Expiry Date	25 November 2018
Sheet	1 of 1


Thorsten Wolff
Hamburg Technical Support Office
Lloyd's Register EMEA

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Marine Design Appraisal Document

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Date
26 November 2013

Please quote this reference number on all future communications
HPC1320144/29022-13/TW/LK

THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002

ISSUED TO: **BD|SENSORS GMBH, THIERSTEIN**

FOR: **LEVEL PROBE**

TYPE APPROVAL CERTIFICATE NO. **13/20056**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Form LR2571	Application for Type Approval	22.04.2013
HPC 1320143	Initial Inspection Report	06.09.2013
08 100 982136	DIN EN ISO 9001 Certificate	10.09.2010
MP-506/09	Verfahrensweisung Softwareerstellung und Softwareprüfung	28.01.2009
F-EK 05	Softwarekonventionen	24.04.2009
Unnumbered	Softwarereleases ELI 38 / ELI 25 for LMK458 H	23.06.2008
TÜV 10 ATEX 382477 Q	Production Quality Assessment Notification	09.09.2013
EP500_E	EP 500 pressure transmitter	01.06.2013
LMK458_E	LMK 458 probe for marine and offshore	01.06.2013
LMK458H_E	LMK 458H probe with HART-communication for marine and offshore	15.09.2013
DSK701C_E	Datasheet DSK 701C	11.03.2011
IBExU05ATEX1070 X	EC-Type Examination Certificate	14.07.2005
IBExU07ATEX1180 X	EC-Type Examination Certificate	14.01.2008
IBExU10ATEX1186 X	EC-Type Examination Certificate	21.12.2010

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

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DRAWINGS

56.603.500_F	Assembly drawing	LMK 382/Ex-LMK 457/Ex	14.06.2005
56.603.511_F	Assembly drawing	LMK 382/Ex-LMK 457/Ex	14.06.2005
56.603.520_C	Assembly drawing	LMK 382 - LMK 457	14.06.2005
56.603.585_F	Assembly drawing	LMK 382	14.06.2005
76,603,000	Assembly drawing	LMK 457 / Ex	14.06.2005
76.606.010 / 02	Assembly drawing	LMK 458 G	25.04.2012
76.606.085 / 02	Assembly drawing	LMK 458 G	11.05.2012
76.606.701 / 02	Assembly drawing	LMK 458 G	11.05.2012
76.606.M00 / 01	Assembly drawing	LMK 458 G	15.05.2012
76,608,020	Assembly drawing	LMK 458 / Ex	11.03.2009
76.610.701 / 01	Assembly drawing	LMK 458 G	05.03.2012
76.656.000 / A	Assembly drawing	LMK 458 H Ex	24.05.2012
76.656.001 / A	Assembly drawing	LMK 458 H Ex	25.05.2012
76.656.085 / A	Assembly drawing	LMK 458 H Ex	31.05.2012
76.656.M00 / 01	Assembly drawing	LMK 458 H Ex	30.08.2012
76.657.000 / 02	Assembly drawing	LMK 458 H Ex	30.08.2012
76.657.001 / 02	Assembly drawing	LMK 458 H Ex	30.08.2012
76.657.M00 / 01	Assembly drawing	LMK 458 H Ex	30.08.2012
76.670.010 / 01	Assembly drawing	LMK 458 G	17.11.2011
76.670.M00 / 01	Assembly drawing	LMK 458 G	05.10.2011
EI.060.004	Assembly drawing	ELI25_4o	24.01.2008
EI.060.002	Circuit diagram	ELI25_4s	04.12.2007
EI.060.004	Layout	ELI25_4t	24.01.2008
EI.090.002	Circuit diagram	ELI28_1s	03.04.2008
EI.090.005	Layout	ELI28_1t	12.12.2007
EI.090.004	Assembly drawing	ELI28o	03.12.2007
EI.090.005	Layout	ELI28t	03.12.2007
ST.360.004	Assembly drawing	Emv13_2o	02.12.2002
ST.360.002	Circuit diagram	Emv13_2s	02.12.2002
ST.360.005	Layout	Emv13_2t	02.12.2002

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DRAWINGS continues

Unnumbered	Parts list	EMV43	06.05.2009
ST.660.004	Assembly drawing	EMV43, Version 02	11.08.2009
ST.660.002	Circuit diagram	EMV43, Rev. 02	11.08.2009
ST.670.002	Circuit diagram	EMV 44 - LMK 457 GL	05.11.2007
ST.670.004	Assembly drawing	EMV 44 Placeplan	05.11.2007
ST.670.005	Layout	EMV 44 Layout	05.11.2007

TEST REPORTS

Unnumbered	Überdruckprüfungen	04.10.2013
10 / 1068-1	TÜV Nord test report	24.06.2010
09 / 8152-2-1	EMV Services test report	02.02.2009
09 / 9036-1	EMV Services test report	01.09.2009
09 / 9036-2-2	EMV Services test report	16.11.2009
6196/07	BFSV test report	20.07.2007
UB 6817 / 09	BFSV test report	20.01.2010
P-5-0030	Carsynergies test report	02.03.2005
07 / 7047-3	EMV Services test report	26.03.2007
07 / 7047-4	EMV Services test report	26.03.2007
07-1481	paconsult test report	21.03.2007
07-1590	paconsult test report	26.10.2007

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.

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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.



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Part 3

Transmitters/Transducers

Producer / Licence No.	Item Description	Technical Details	Category / Additional Tests	Remarks	Cert. No.
BD SENSORS GmbH BD-Sensors-Str. 1 95199 Thierstein GERMANY	Level probe LMK 458* DX14A-LMK458* LMK 458 H* (HART communication) DX15A-LMK458 H* (HART communication) EP 500	Power supply Vdc: 24 Output (mA): 4-20 Pressure range (bar): 0-0.04 to 0-20 0-0.04 to 0-20 0-0.06 to 0-20 0-0.06 to 0-20 0-0.06 to 0-20 Software release: 2.2 (LMK458 H) 2.0 (DSK 701 C)	ENV1, ENV2, ENV3, ENV4(****) (2002)	Expires: 25 November 2018 Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates.	13/20056

TW Co. A. 2013