



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx IBE 12.0027X Issue No: 2 Certificate history:
Status: Current Issue No. 2 (2019-09-13)
Date of Issue: 2019-09-13 Page 1 of 4 Issue No. 1 (2014-04-29)
Applicant: BD SENSORS GmbH Issue No. 0 (2012-12-11)
BD-Sensors-Str. 1
95199 Thierstein
Germany
Equipment: Pressure Transmitter DX19 series
Optional accessory:
Type of Protection: Intrinsic safety "ia"
Marking:
Ex ia IIC T4 Ga
Ex ia IIB T4 Ga (type DX19-*457* only)
Ex ia IIC T4 Gb (non-metallic pressure connection)
Ex ia III C T85 °C Da
Ex ia III C T85 °C Db (non-metallic pressure connection)

Approved for issue on behalf of the IECEx
Certification Body:

Dipl.-Ing. Alexander Henker

Position:

Head of Certification Body

Signature:
(for printed version)

Date:

2019-09-13

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Certification Body
Fuchsmühlenweg 7
09599 Freiberg
Germany





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Manufacturer: **BD SENSORS GmbH**
BD-Sensors-Str. 1
95199 Thierstein
Germany

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[DE/IBE/ExTR12.0031/00](#)

[DE/IBE/ExTR12.0031/01](#)

Quality Assessment Report:

[DE/IBE/QAR19.0004/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Pressure transmitters DX19 are different pressure measurement devices or level probes in stainless steel enclosure with different pressure ports. As measuring cell and evaluation electronic serves a separately approved electronic module. The devices having metallic pressure Connection are intended for use in potentially hazardous areas, where EPL Ga respective Da devices are required. They are supplied by an intrinsically safe power supply of the Category „ia“.

See the attachement for detailed technical data.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The equipment designed with connector have to be installed in such a way that the degree of protection IP 20 is always kept.

The safety and assembly instructions contained in the operating instruction and the ambient temperature range have to be taken into account.

The device may be operated in explosive atmospheres which requires equipment of EPL Ga only when there are atmospheric conditions (temperature of -20 °C to +60 °C, pressure of 0.8 bar to 1.1 bar).



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

New QAR

Annex:

[Annex CoC_2.pdf](#)



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Type code

DX19- A B C nnn D

| | | |
|------------|--------|------------------------------|
| A | D | pressure measurement devices |
| | L | level probe |
| B | M | transmitter |
| C | P | stainless steel sensor |
| | K | ceramic sensor |
| nnn | number | design |
| D | I | precision |

Exception

| | |
|------------|--------------------------|
| DMK457 KRO | with EMV 45 as clamp PCB |
| 17.600G | conform to DMP |

Technical data

| | | |
|---|---|------------|
| Ambient temperature range | -20 °C to +70 °C (type DX19-*** I to +65 °C) -40 °C to +70 °C (DMP331 and DMP333 with static cable system) | |
| Ingress protection of enclosure | ≥ IP 65 | |
| Explosion protection method | Intrinsic safety "ia" | |
| Supply circuit in type of protection | Intrinsic Safety Ex ia IIC (supply + and -) | |
| | U _i | 28 V DC |
| | I _i | 93 mA |
| | P _i | 660 mW |
| effective inner capacity | C _i | negligible |
| effective inner inductivity | L _i | negligible |
| additional line inductivities 1 µH/m and line capacities 160 pF/m (cable supplied by the manufacturer) The supply connections have an inner capacity of max. 27 nF to the housing. | | |
| Type DX19-*457 * resp. devices having EMV 58 in type of protection Intrinsic Safety Ex ia IIB | | |
| effective inner capacity | C _i | 105 nF |
| effective inner inductivity | L _i | 5 µH |
| The supply connections have an inner capacity of max. 91 nF resp. 140 nF to the housing. | | |



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Types

| Name | Type | Electronic-module | Measurement cell |
|------------|-------|----------------------|--|
| DMP 343 | PT | ELMO-STA | DSP 210 / ELV 66 = DSP 210 Z |
| DMP 331 | PT | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative ICS 86 / ELV 70 = ICS 86 Z |
| DMP 333 | PT | ELMO-STA | DSP 4XX / ELV 66 = DSP 4XX Z |
| DMP 335 | PT | ELMO-STA | MSP 12X / ELV 57 = MSP 12X Z |
| 17.600G | PT | ELMO-STA | MSP 12X / ELV 57 = MSP 12X Z |
| DMK 331 | PT | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z DSK 516 with ELV 94 |
| LMP 331 | PT | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative ICS 86 / ELV 70 = ICS 86 Z |
| LMK 331 | PT | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z |
| LMK 307 | Probe | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z |
| DMP 331 I | PT | ELMO-PRE | DSP 4XX / ELI 20 = DSP 4XX X alternative ICS 86 / ELI 20 with aid board PD16 |
| DMP 333 I | PT | ELMO-PRE | DSP 4XX / ELI 20 = DSP 4XX X |
| LMP 331 I | PT | ELMO-PRE | DSP 4XX / ELI 20 = DSP 4XX X alternative ICS 86 / ELI 20 with aid board PD16 |
| DMP 331 P | PT | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative DSP 1XX / ELV66 = DSP 1XX Z |
| DMK 331 P | PT | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z |
| DMK457 KRO | PT | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z additional with EMV 45 as clamp board. |
| LMP 307 | Probe | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative ICS 86 / ELV 70 = ICS 86 Z |
| LMP 307 I | Probe | ELMO-PRE | DSP 4XX / ELI 20 = DSP 4XX X alternative ICS 86 / ELI 20 with aid board PD16 |
| LMP 308 | Probe | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative ICS 86 / ELV 70 = ICS 86 Z |
| LMP 308 I | Probe | ELMO-PRE | DSP 4XX / ELI 20 = DSP 4XX X alternative ICS 86 / ELI 20 with aid board PD16 |
| DMP 457 | PT | ELMO-STA | DSP 4XX / ELV66 = DSP 4XX Z alternative ICS 86 / ELV 70 = ICS 86 Z EMV 58 replaced by EMV 26 of ELMO-STA |
| DMK 457 | PT | ELMO-STA | DSK 511 / ELV 58 = DSK 511 Z EMV 58 replaced by EMV 26 of ELMO-STA |
| DMP 339 | PT | ELMO-STA ELMO-PRE | ICS 89 / ELV 66 / ELV 68 / EMV 26 ICS 89 / ELI 36 / ELI 37 / EMV 52 |
| 17.605 | PT | ELMO-STA | SPS 1000 / ELV 49 / ELV 68 / EMV 26 |
| 26.600 | PT | ELMO-STA | DSK611 / ELV 49 / ELV 68 / EMV 26 |
| DMP 334 | PT | ELMO-STA | ST1 with ELV97 |



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| | | | |
|---------|----|----------|--|
| DMP 311 | PT | ELMO-STA | DSP4XX, ICS86, NPI15 with ELV66, ELV70, ELV86 |
| DMP 321 | PT | ELMO-STA | DSP4XX, ICS86, NPI15, ST1 with ELV79, ELV67, ELI68, ELI69, ELI57, ELI63, ELI73 |