



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx PTZ 18.0008X**

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Certificate history:

Status: **Current**

Issue No: 1

[Issue 0 \(2018-07-26\)](#)

Date of Issue: 2022-10-04

Applicant: **Festo SE & Co. KG**
Ruiter Strasse 82
Esslingen 73734
Germany

Equipment: **Sensor Type SDBT-MS-20NL-ZN-E-a-LE-EX6**

Optional accessory:

Type of Protection: **Intrinsic safety "i"**

Marking: Ex ia IIC T4 ... T6 Ga

Ex ia IIIC T135 °C Da

Approved for issue on behalf of the IECEx
Certification Body:

Dave Magee

Position:

Senior Director of Operations, Toronto

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group
178 Rexdale Blvd.
Toronto Ontario M9W 1R3
Canada





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Manufacturer: **Festo SE & Co. KG**
Ruiter Strasse 82
Esslingen 73734
Germany

Manufacturing locations: **FESTO Production EOOD**
Cristofor Columbus 7
1592 Sofia
Bulgaria

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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

This Certificate **does not** indicate compliance with 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 Reports:

DE/PTZ/ExTR18.0009/00

DE/PTZ/ExTR18.0009/01

Quality Assessment Report:

NL/DEK/QAR12.0012/09



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Sensor Model SDBT-MS-20NL-ZN-E-a-LE-EX6 detects the magnetic field of a permanent magnet that is integrated in the piston of a cylinder, in this way indirectly indicating the position of the piston rod. The sensor is mounted in a slot in the cylinder.

The position "a" in the type designation represents the numerical values "0.1 to 30.0" and indicates the length of the permanently connected cable in meters.

The maximum ambient temperature is 45 °C for temperature class T6 and 85 °C for temperature class T4 and group III (T135 °C).

The minimum temperature is -40 °C or -20 °C if the cable is not installed permanently.

Electrical data

Supply and signal circuit:

In type of protection intrinsic safety Ex ia IIC and Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with following maximum values:

$U_i = 28V$, $I_i = 250mA$, $P_i = 72mW$ for T6 and 350mW for T4 and group III (T135 °C)

maximum effective internal inductance $L_i = 30\mu H$,

maximum effective internal capacitance $C_i = 79nF$.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. For electrical data and thermal data, see certificate of conformity or manual.
2. If used at ambient temperatures below -20 °C, the sensor including the connection cable has to be installed in a protective manner against mechanical stress and the cable has to be fixed.
3. When used in areas that there is a risk of dust explosions, the permanently connected connection cable must be protected against electrostatic charging caused by dust passing by.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 1, recognises the following changes;

1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Edition 6.0 were replaced by IEC 60079-0:2017, Edition 7.0 and specific condition of use was modified.
2. Recognise minor drawing modification to include modified label material.
3. The manufacturer name has been updated from Festo AG & Co. KG to Festo SE & Co. KG.