1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **PTZ 16ATEX0010X** Issue: **1**

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

5 Applicant: **Festo SE & Co. KG**

6 Address: Ruiterstrasse 82 Esslingen,
Baden-Württemberg
73734
Germany

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

Ex II 1G Ex ia IIC T4 ... T6 Ga

Ex II 1D Ex ia IIIC T135°C Da
Ta = -40°C ≤ Ta ≤ 85°C (cable in fixed location)
Or
Ta = -20°C ≤ Ta ≤ 85 °C (cable not in fixed location)

Signed: Michelle Halliwell

Title: Director of Operations

Project Number 80118825
This certificate and its schedules may only be reproduced in its entirety and without change
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **PTZ 16ATEX0010X**
Issue 1

13 DESCRIPTION OF EQUIPMENT

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 the following maximum values:

Ui= 28V, Ii= 250mA, Pi= 72mW for T6 and 350mW for T4 and group III (T135 °C)
Maximum effective internal inductance Li= 30µH,
Maximum effective internal capacitance Ci= 79nF.

Variation 1 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012 + A11:2013 were replaced by EN IEC 60079-0:2018.
ii. Recognise minor drawing modification to include modified label material.
iii. The manufacturer name has been updated from Festo AG & Co. KG to Festo SE & Co. KG

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	23 August 2016	ZELM 18913191070	The release of the prime certificate.
1	04 October 2022	R80118826A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 For electrical data and thermal data, see certificate of conformity or manual.

15.2 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.

15.3 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.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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SCHEDULE

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17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe

Certificate Number: **PTZ 16ATEX0010X**

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

Applicant: **Festo SE & Co. KG**

Issue 0: Refer to the ZELM report stated in section 14.2

Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
SDBT-EX6_2021_10_22	1 to 15	6	30 Aug 22	Approval Documentation
8059576_D	1 to 2	D	11 Aug 22	Product Label

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