



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 09ATEX3209X** Issue: **7**

4 Equipment: **DXR-R*M***** Switchbox**

- 5 a **Topworx**
- b **Emerson Machinery Equipment (Shenzhen) Co. Ltd**
- c **Emerson Process Management Magyarország Kft.**
- d **Emerson Automation Fluid Control & Pneumatics Poland Sp. z o.o**

- 6 a 3300 Fern Valley Road, Louisville, Kentucky, 40213, USA
- b 101 Building 2 COFCO Park, Hong Lang North 2nd Road, Xin'an Street, Bao'an District, Shenzhen 518101. China
- c Fisher Controls International LLC, H-8001 Székesfehérvár, Berenyi U, 72-100, Hungary
- d Kurczaki 132 93 331 Lodz Poland

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+Corr1:2020 EN IEC 60079-7:2015 incl. A1:2018 EN 60079-18:2015 incl. A1:2017 EN 60079-31:2014

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:



II 2GD
 Ex eb mb IIC T4 Gb
 Ex tb IIIC T66°C Db IP67
 Ambient range
 24 Vdc Asco valve: -20°C to +44°C
 115 Vac/230 Vac Asco valve: -20°C to +37°C

Signed: J A May

Title: Director of Operations



Project Number 80103685

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The DXR-**M***** Switchbox monitors the position of a valve by providing electrical feedback and optional visual indication. It uses a glass fibre reinforced polyester enclosure that houses the following devices:

- One Topworx Cube, either 2-reed or 4-reed - supply: 1 A/125 V maximum.
- Two Asco Joucomatic piezo valves (IECEx SIR 06.0109X, BAS98ATEX2168X), which may be one of the following types:
 - EM5 PVX 30200018: 24 Vdc, 3 W.
 - EM5 PVX 30200017: 115 Vac, 5 W.
 - EM5 PVX 30200017: 230 Vac, 5 W.

The enclosure comprises an upper and lower housing that is fitted with a metallic or a non-metallic bush. The shaft that passes through these bushes is connected to the driving source in the lower housing and is used to activate the internal equipment, this includes the optional visual indication of the shaft rotational position which is located in the upper housing. The enclosure is provided with moulded threaded bushings for the installation of the internal apparatus, chassis plates etc. and the lower housing can be fitted with metallic or non-metallic hubs that accommodate threaded entries and facilitate the attachment of an air operated valve. The enclosure also has an internal and external earth facility or an earth continuity chassis plate. The cover joint is provided with an "O" ring to maintain the ingress protection of the enclosure.

Variation 1 - This variation introduced the following changes:

- To permit the replacement of the IP64 marking with IP67 on the DXR (resin) enclosures. The marking in Section 12 was amended accordingly.
- Following appropriate re-assessment to demonstrate compliance with the requirements of EN 60079-31:2009, the document originally listed in Section 9, EN 61241-1:2004 was replaced.

Variation 2 - This variation introduced the following change:

- The recognition of minor drawing modifications; these amendments are administrative and do not affect the aspects of the product that are relevant to explosion safety.

Variation 3 - This variation introduced the following change:

- To allow an alternative silicone gasket/O-ring material to be used on the enclosure, shaft and valve manifold where applicable.



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Variation 4 - This variation introduced the following change:

i. The introduction of two additional manufacturing locations:

Emerson Machinery Equipment (Shenzhen) Co. Ltd. Fisher Controls Division Bao Heng Technology Industry Park North Hong Long 2 nd Road District 68 Bao'an District Shenzhen 518101, China	Emerson Proces Management Magyarország Kft. Fisher Controls International LLC H-8001 Székesfehérvár Berenyi U 72-100, Hungary
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Variation 5 - This variation introduced the following change:

i. The change to the name of the facility in Poland was recognised;
From: ASCO Numatics Sp. z o.o.
To: Emerson Automation Fluid Control & Pneumatics Poland Sp. z o.o.

Variation 6 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2007, EN 60079-7:2007, EN 60079-18:2004 and EN 60079-31:2009 were replaced by EN IEC 60079-0:2018, EN IEC 60079-7:2015 incl. A1:2018, EN 60079-18:2015 incl. A1:2017 and EN 60079-31:2014, the markings in section 12 were updated accordingly

ii. The Chinese factory address was amended.

From: Bao Heng Technology Industry Park North Hong Long 2 nd Road, District 68, Bao'an District Shenzhen 518101 China	To: 101 Building 2 COFCO Park Hong Lang North 2 nd Road Xin'an Street Bao'an District Shenzhen 518101 China
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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated CSA Group Reports and Certificate History

Issue	Date	Report number	Comment
0	9 December 2009	R16882A	The release of the prime certificate.
1	06 May 2011	R23823A/00	The introduction of Variation 1.
2	25 November 2011	R25807A/00	The introduction of Variation 2.



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Issue	Date	Report number	Comment
3	17 August 2012	R28300A/00	The introduction of Variation 3.
4	07 May 2014	R70005505A	The introduction of Variation 4.
5	15 October 2019	1903	<ul style="list-style-type: none">Transfer of certificate Sira 09ATEX3209X Sira Certification Service to CSA Group Netherlands B.V.EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)
6	30 July 2020	R80050077A	The introduction of Variation 5.
7	17 February 2022	R80103685A	The introduction of Variation 6.

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

- 15.1 The DXR-**M***** Switchbox shall only be installed in a location where there is a low risk of mechanical damage.
- 15.2 The DXR-**M***** Switchbox shall not be used inside liquid fuel metering pumps, dispensers and remote pumping units.
- 15.3 The Asco piezo valve shall be connected to a supply protected by a fuse capable of interrupting the prospective short circuit current of that supply.

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.

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: Sira 09ATEX3209X
Equipment: DXR-R*M***** Switchbox
Applicant: Topworx

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
CERT-ES-01703-1	1 to 2	a	06 Nov 09	General assembly
CERT-ES-01946-1	1 of 1	1	06 Nov 09	Nameplate
ES-01568-1	1 of 1	2	06 Nov 09	4-reed Cube: encapsulation details
ES-01569-1	1 to 8	3	06 Nov 09	4-reed Cube: artwork & BoM
ES-01571-1	1 of 1	3	06 Nov 09	2-reed Cube: encapsulation details
ES-01572-1	1 to 8	3	06 Nov 09	2-reed Cube: artwork & BoM

Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
CERT-ES-01946-1	1 of 1	2	30/03/2011	Nameplate

Issue 2

Drawing	Sheets	Rev.	Date (Stamp)	Title
ES-01572-1	1 to 8	4	29 Sep 11	2-reed Cube: artwork & BoM
ES-01569-1	1 to 8	5	29 Sep 11	4-reed Cube: artwork & BoM

Issue 3. No new drawings were introduced

Issue 4

Drawing	Sheets	Rev.	Date (Stamp)	Title
CERT-ES-01946-1	1 of 1	3	07 May 14	Nameplate

Issue 5 and 6. No new drawings were introduced

Issue 7

Drawing	Sheets	Rev.	Date (Stamp)	Title
CERT-ES-01946-1	1 of 1	5	17 JAN 22	Nameplate



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