



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres  
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 21UKEX3722X** Issue: **0**

4 Product: **Switchboxes / DXR-R\*M\*\*\*\*\***

5 Manufacturer: **Topworx**

6 Address: **3300 Fern Valley Road,  
Louisville,  
Kentucky,  
40213, USA**

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

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. 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 has been assured by compliance with:

EN IEC 60079-0:2018      EN IEC 60079-7:2015 incl. A1:2018      EN 60079-18:2015 incl. A1:2017  
EN 60079-31:2014

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

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

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and 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

Name: Michelle Halliwell  
Title: Director of Operations



**SCHEDULE**

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**13 DESCRIPTION OF PRODUCT**

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.

The product description includes the following applicable amendments from the previous supporting assessments. Only amendments directly applicable to UKCA certification have been included in this list. The amendments are numbered to include a reference to the variation at which these were introduced.

To permit the replacement of the IP64 marking with IP67 on the DXR (resin) enclosures. The marking in Section 12 was amended accordingly.

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

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Reports and Certificate History**

Issue	Date	Report number	Comment
0	11 April 2022	R80088229A	The release of the prime certificate.

**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.



## SCHEDULE

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- 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 (REGULATIONS SCHEDULE 1)**  
In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.
- 17 **PRODUCTION CONTROL**
- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders



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## Certificate Annexe

Certificate Number: CSAE 21UKEX3722X  
Product: Switchboxes / DXR-R\*M\*\*\*\*\*  
Manufacturer: Topworx

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### Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
CERT-ES-01703-1	1 to 2	a	06 Nov 09	General assembly
ES-01568-1	1 of 1	2	06 Nov 09	4-reed Cube: encapsulation details
ES-01569-1	1 to 8	5	29 Sep 11	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	4	29 Sep 11	2-reed Cube: artwork & BoM
CERT-ES-09057-1	1 of 1	AA	03 MAR 22	Nameplate & Nomenclature



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