[1]

UNITED KINGDOM CONFORMITY ASSESSMENT

UK-TYPE EXAMINATION CERTIFICATE

[2]

Product or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1

[3] Type Examination Certificate No.: **UL21UKEX2242X Rev. 0**

[4] Product: Electro Pneumatic Power Supplies (**EPPS)**

[5] Manufacturer: **Expo Technologies Limited**

[6] Address: **Unit 2 The Summit, Hanworth Road, Sunbury on Thames, Surrey, TW16 5DB, United Kingdom**

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

[8] UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), 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 report **47989958588.2**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-11:2012 EN 60079-31:2014

Except in respect of those requirements listed at section 18 of the schedule to this certificate.

[10] If the sign “X” is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified 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 the product shall include the following:

Ex II 2 (1) G Ex db [ia Ga] IIC T6 Gb

Ex II 2 (1) D Ex tb [ia Da] IIIC T65°C Db

Certification Manager
David Lloyd

This is to certify that the sample(s) of the Product described herein (“Certified Product”) has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the Ex UK Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. The test results may not be used, in whole or in part, in any other document without UL’s prior written approval.

Date of issue: 2021-09-28

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK
Phone : +44 (0)1256 312100

[13] **Schedule**

[14] **UK-TYPE EXAMINATION CERTIFICATE No.**
UL21UKEX2242X Rev. 0

[15] Description of Product

These devices are electro pneumatic power supplies (EPPS), electric generators for use in hazardous locations, providing intrinsically safe outputs for connection to intrinsically safe devices. The EPPS flameproof protection method comprises a cylindrical main body that houses a generator and I.S. Barrier with a lead seal and shaft joint which completes the flameproof enclosure. The dust ignition protection by enclosure comprises the cylindrical main body with a lead seal and cowling. These devices use a limited amount of compressed air, 4 bar max, to provide intrinsically safe output.
Nomenclature:

E	P	W	-	E	P	P	S	-	0	0	1
I	II	III		IV	V	VI	VII		VIII	IX	X

I - E – Model Designation Given as E
II - P– Model Designation Given as P
III - W– Model Designation Given as W
IV - E - Electro
V - P - Pneumatic
VI - P - Power
VII - S - Supply
VIII - 0 - Numerical Value Given as 0
IX - 0 - Numerical Value Given as 0
X - Output Entity Parameter Designations Given as 0, 1, or 2

Temperature range
The ambient temperature range is -50 °C to +65 °C.

Electrical data

Input Pressure Rating: 4.0 bar (58 psi)
Input Pressure Temperature: 65°C max

The output entity parameters assigned to the models are as follows:

Output Entity Parameters								
EPW-EPPS-000			EPW-EPPS-001			EPW-EPPS-002		
Uo	:	10.8 V	Uo	:	14.3 V	Uo	:	7.0 V
Io	:	3.28 A	Io	:	1.085 A	Io	:	3.316 A
Po	:	1.46 W	Po	:	1.942 W	Po	:	1.885 W
Lo	:	3.10 uH	Lo	:	30.00 uH	Lo	:	3.03 uH
Co	:	2.14 uF	Co	:	0.68 uF	Co	:	15.7 uF

Routine tests
Routine tests according to EN 60079-1 cl. 16 are not required.

[16] Test report No. (associated with this certificate issue)
ExTR Reference Number US/UL/ExTR17.0016/02

[17] Specific conditions of use:

- The EPPS shall be installed within an enclosure which provides protection against impact. The enclosure must have a minimum IP20 rating.
- The flameproof joints are not intended to be repaired, contact Expo for further information.

[18] Essential Health and Safety Requirements (Regulations Schedule 1)
In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

[13] [14]

Schedule
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UL21UKEX2242X Rev. 0

The trademark  may be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.

[19] Drawings and Documents

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
EPPS – Exploded View	SD8279	1	2017-05-05
EPPS – Electronics	SD8280	1	2017-05-05
EPPS – Overall Schematic	SD8270	1	2016-11-02
EPPS - I.S. Barrier Schematic	SD8215	1	2017-05-05
EPPS Electronic Component List	SD8269	1	2016-11-29
EPPS - I.S. Barrier PCB	SD8271	1	2017-02-14
EPPS - Separation PCB	SD8272	1	2016-11-01
EPPS – Encapsulation	SD8276	1	2017-05-05
EPPS: ATEX, IECEX, UL, UKEX Certification Label	SD8132	3	2021-08-31
EPPS Construction	SD8182	5	2018-03-01
EPPS: Manual Extracts and Markings	SD8136	2	2021-08-31
EPPS Installation	SD8131	2	2018-03-07