IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx EXV 19.0025X

Issue No: 0

Certificate history:
Issue No. 0 (2019-07-26)

Status: **Current**

Date of Issue: **2019-07-26**

Applicant: **Expo Technologies Ltd**
Expo Technologies Ltd
Unit 2, The Summit
Hanworth Road
Sunbury on Thames
Surrey, TW16 5DB
United Kingdom

Equipment: **PE3 and PE3E Range of Enclosures**

Optional accessory:

Type of Protection: **Pressurisation and Enclosure Ex 'pzc' & 'tc'**

Marking:
Ex pzc IIC T4 Gc or Ex tc IIIC T135°C Dc or Ex pzc IIIC T135°C Dc

Approved for issue on behalf of the IECEx Certification Body: S D'Henin

Position: Certification Manager

Signature:
(for printed version)

Date:

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 the Official IECEx Website.

Certificate issued by:

ExVeritas Limited
Units 16-18 Abenbury Way
Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom

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Manufacturer: **Expo Technologies Ltd**
Unit 2, The Summit
Hanworth Road
Sunbury on Thames
Surrey, TW16 5DB
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Additional Manufacturing location(s):

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 apparatus 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-2 : 2014-07 Edition:6	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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 Report:

GB/EXV/ExTR19.0048/00

Quality Assessment Report:

GB/SIR/QAR07.0012/14

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Expo Technologies PE3 and PE3E range of Enclosures consisting of the PE2 or PE2E enclosure and accessory range as identified on component certificate number IECEx EXV19.0010U, fitted with internal apparatus as defined in this schedule.

For use in explosive gas atmospheres or in explosive dust atmospheres where the equipment is marked for pressurization, each enclosure will be fitted with a purge controller providing pressurization type "pzc" as appropriate, suitably IECEx certified as apparatus.

Selection of the purge controller, purge flow rate, and purge time are identified by reference to the enclosure volume as defined on drawing SD7952.

Components as defined in Expo Technologies drawings SD7960 "Contents for PE3 and PE3E Enclosures" and / or SD7961 "PE3 & PE3E Enclosures with Dust Protection" may be installed.

Both internal and external earthing facilities are provided.

Standard temperature range -20°C to +40°C with alternative increased range -20°C to +55°C marked when appropriate.

Alternative marking:

Enclosure may be manufactured containing intrinsically safe associated apparatus, in which case they shall be marked to include the appropriate intrinsic safety marking as appropriate, for example:

II 3 (1) G Ex pzc [ia Ga] IIC T4 Gc

Where certified apparatus incorporating protection types flameproof, increased safety, intrinsic safety, encapsulation or Type "n" is incorporated onto or into the enclosure, the protection concepts may as an alternative to the marking of individual certified items on a label on the exterior of the enclosure, be incorporated into the pressurized enclosure overall marking code, in accordance with drawing SD7947.

Where apparatus is incorporated with a temperature class giving a higher surface temperature than T4 (i.e. T3, T2 or T 1) for Gas atmospheres or T135°C for Dust atmospheres, the temperature class shall be amended from T4 or T135°C to match the highest surface temperature class of the certified apparatus installed on or in the enclosure.

Where certified apparatus is incorporated that requires marking of the gas group other than IIC or dust group other than IIIC, the overall marking code shall be modified to reflect the most restrictive gas or dust group of the incorporated apparatus.

Where enclosures are manufactured that simultaneously comply with the requirements for explosive gas atmospheres and explosive dust atmospheres, the appropriate markings shall be listed separately as required by IEC 60079-0:2017 Clause 29.6.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Special Conditions for Safe Use

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Where the power to the pressurized enclosure is not automatically controlled by the purging control system, it is responsibility of the user to provide an appropriately certified means of isolation adjacent to the enclosure, marked with appropriate operating instructions. Alternatively, another equally effective means of isolation and associated operating procedure shall be provided.

The correct installation of intrinsically safe apparatus within the enclosure has not been assessed as part of this certification, and this certificate is not to be used as evidence that enclosures including intrinsically safe apparatus or associated apparatus meet all the relevant requirements for intrinsically safe systems.

Conditions of Manufacture

Enclosures shall be fitted with over-temperature limitation devices as shown on drawing SD7956.

Internal components must be installed in accordance with drawing SD7960 and SD7961 as appropriate.

Where associated intrinsically safe apparatus is fitted within the enclosure it must have a maximum ambient temperature rating of at least 55°C.

This certificate shall be accompanied by a document, endorsed by Expo Technologies Ltd, defining the build of the enclosure and including a list of any certified equipment incorporated into the enclosure (including Item description, manufacturer, certificate number and ratings) and specification of the modifications (if any) performed to any internal components in order to fulfil the requirements laid out in the certified documents.

The special conditions of safe use or conditions of certification listed on the certificate of any piece of installed apparatus shall be conveyed to the user in an appropriate manner.

Routine Tests

For enclosures incorporating purge and pressurization control systems:

- The pressurized enclosure shall be pressure tested at the pressures specified in the certified drawings.
- The enclosure Leakage Rate shall be measured.
- The manufacturer shall verify that opening the door during operation of the apparatus results in the pressure within the enclosure falling below the minimum specified overpressure, thus causing the appropriate alarm indication to be made.

Annex:

ExV 19.0025X IECEx Annex.pdf

Manufacturer's documents:				
Title:	Drawing No.:	Rev	Sheets	Date:
Internal Configuration - Fans	SD7632	1	1 of 1	16/12/09
Protruding Sections	SD7633	1	1 of 1	16/12/09
Chassis Sizes	SD7634	1	1 of 1	1/3/10
Heat Dissipation — Configuration	SD7636	1	1 of 1	1/3/10
PE3 & PE3E Enclosure Labels	SD7946	5	11 of 11	15/07/19
Alternative marking PE3 and PE3E Enclosures	SD7947	4	1 of 1	15/07/19
Purge Test with no Internal Source of Release	SD7948	2	2 of 2	04/08/11
PE3 Battery Testing Procedure	SD7949	3	1 of 1	15/07/19
PE3 Approved Batteries	SD7950	3	1 of 1	15/07/19
Connection Facilities for PE3 and PE3E Enclosures	SD7951	3	1 of 1	15/07/19
Purging Conditions	SD7952	2	1 of 1	15/07/19
Thermostatic Heat Source Control	SD7956	3	1 of 1	15/07/19
Radio Sources for PE3 and PE3E Enclosures	SD7958	2	1 of 1	15/07/19
PE3 & PE3E Enclosed Volumes EV	SD7959	1	2 of 2	17/03/11
Contents for PE3 & PE3E Enclosures	SD7960	4	1 of 1	15/07/19
PE3 & PE3E Enclosures with Dust Protection	SD7961	4	2 of 2	15/07/19

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