IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx EXV 19.0024X**

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Certificate history:
Issue 2 (2022-11-08)
Issue 1 (2020-06-12)
Issue 0 (2019-06-24)

Status: **Current**

Issue No: 3

Date of Issue: 2024-04-24

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

Equipment: **PE2 and PE2E Range of Enclosures**

Optional accessory:

Type of Protection: **Ex p & tb**

Marking: Ex pxb IIC T4 Gb

Ex pxb IIIC T135°C Db

Ex tb IIIC T135°C Db

Approved for issue on behalf of the IECEx Certification Body: **Sean Clarke CEng MSc FIET**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

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
United Kingdom

Manufacturing locations:

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-2:2014 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
Edition:6

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

GB/EXV/ExTR19.0030/00 GB/EXV/ExTR20.0047/00 GB/EXV/ExTR22.0098/00

Quality Assessment Report:

GB/EXV/QAR24.0002/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Expo Technologies PE2 and PE2E range of ENCLOSURES consisting of the PE2 or PE2E enclosure and accessory range as identified on component certificate number ExVeritas19ATEX0454U. For use in explosive gas atmospheres, or in explosive dust atmospheres where pressurization is required, each enclosure will be fitted with an automatic purge controller as identified on certificate Sira 01ATEX1295X or other purge and pressurization control system, suitably ATEX certified as apparatus. The enclosures are rated for ingress protection to a level of IP40 or IP66

Selection of the purge controller, purge flow rate, and purge time are identified by reference to the enclosure volume as defined on drawing SD7631.

Components as defined in Expo Technologies Pressurized Enclosure Type PE2 Specification of Defined Contents drawing SD7639 may be fitted into the enclosures.

Both internal and external earthing facilities are provided.

Alternative marking:

Enclosure may be manufactured containing intrinsically safe associated apparatus, in which case they shall be marked: Ex pxb [ia Ga] IIC Gb T4

Where certified apparatus incorporating protection types flameproof, increased safety, intrinsic safety or encapsulation 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 SD7626.

Where apparatus is incorporated with a temperature class giving a higher surface temperature than T4 (i.e. T3, T2 or T1) 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 (Clause 29.6).

The apparatus is suitable for ambient temperature range -20°C to +40°C as standard, which may be extended up to +55°C provided that any incorporated certified apparatus is also suitable certified to the increased ambient range.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 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.
- In an event of loss of enclosure pressure, the user shall ensure that power is isolated to the enclosure by implementing an automatic power isolation method as per IEC/EN 60079-14 and any other local code of practice. The user shall verify that the protected apparatus within the enclosure cannot be powered until the purge cycle has completed.
- If automatic power isolation would introduce a more dangerous condition, the user shall implement a safety system to isolate the enclosure power using the “purge complete signal” from the purge control system as per IEC/EN 60079-14 and other local code of practice.

Conditions for Use (Manufacturers responsibility)

- Enclosures shall be fitted with over-temperature limitation devices as shown on drawing SD7635.
- Internal components must be installed in accordance with drawing SD7639
- 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
- Any batteries and associated protection circuits shall be considered in respect of the requirements of the latest edition of IEC/EN 60079-2:2014 (or later) and they must be mechanically protected to a level equivalent to IP30 (min) when the purge cabinet doors are open

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This new issue of the certificate is issued to show that the ExCB responsible for the QAR has now been changed.

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Additional information:
Routine Tests

For enclosures incorporating purge and pressurization control systems:

1. The pressurized enclosure shall be pressure tested at the pressures specified in the certified drawings.
2. The enclosure Leakage Rate shall be measured.
3. The manufacturer shall verify the performance of the pressure sensor, flow sensor and timing device of the purge controller.

Annex:

ExV 19.0024X IECEx Annex iss2.pdf

Manufacturer's documents:				
Title:	Drawing No.:	Rev	Sheets	Date:
PE2 & PE2E Enclosure Labels	SD7625	3	10 of 10	03/06/19
Alternative Marking PE2 & PE2E Enclosures	SD7626	2	1 of 1	17/05/19
Purge Test with no internal source of release	SD7627	1	2 of 2	15/02/10
PE2 Approved Batteries	SD7629	2	1 of 1	03/06/19
Connection Facilities for PE2 and PE2E Enclosures	SD7630	1	1 of 1	15/02/10
Purging Conditions	SD7631	2	1 of 1	17/05/19
Internal Configuration – Fans	SD7632	1	1 of 1	16/12/09
Protruding Configurations	SD7633	1	1 of 1	16/12/09
Chassis Sizes	SD7634	1	1 of 1	1/3/10
Themostatic heat Source Control	SD7635	2	1 of 1	20/05/19
Heat Dissipation – Configuration	SD7636	1	1 of 1	1/3/10
Radio Sources for PE2 and PE2E Enclosures	SD7637	2	1 of 1	17/05/19
PE2 & PE2E Enclosed Volumes (EV)	SD7638	1	2 of 2	15/02/10
Contents for PE2 & PE2E Enclosures	SD7639	2	1 of 1	17/05/19
PE2 & PE2E Enclosures with dust protection	SD7640	2	2 of 2	17/05/19
*Alternative Component certified enclosures for PE# and PE#E range of enclosures	SD8591	1	2 of 2	18/10/2022

*Note: An * is included before the title of documents that are new or revised.*

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