1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 19 ATEX0469X Issue: 0

4 Equipment: PE2 and PE2E Range of Enclosures

5 Manufacturer: Expo Technologies Ltd

6 Address: Unit 2, The Summit, Hanworth Road, Sunbury on Thames, Surrey, TW16 5DB, UK

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

8 ExVeritas, Notified Body number 2585 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN 60079-0: 2018 EN 60079-2: 2014 EN 60079-31: 2014

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall include the following:


II 2 G Ex pxb IIC T4 Gb


II 2 D Ex pxb IIIC T135°C Db Ex tb IIIC T135°C Db

No. 8613

On behalf of ExVeritas

S. Clarke CEng MSc
Certification Manager

Schedule

13 Description of Equipment or Protective System

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⟩ II 2 (1) G 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 TI35°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 EN 60079-0 (Clause 29.6).

The apparatus is suitable for ambient temperature range -20^{0}C to +40^{0}C as standard, which may be extended up to +55^{0}C provided that any incorporated certified apparatus is also suitable certified to the increased ambient range.

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R2000/A/1	19 Jun 2019	0	Initial issue of the Prime Certificate

Schedule

14.2 Compliance Drawings:

Issue 0

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

15 Conditions of Certification

15.1 Special Conditions for Safe Use

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.

15.2 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 55^0 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

Schedule

(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 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 shutting off of the power to the protected equipment. It shall be verified that the protected apparatus within the enclosure cannot be powered until the purge cycle has completed.

16 Essential Health and Safety Requirements

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform the Notified Body of any modifications to the design of the product described by this schedule.