1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 20ATEX0717X Issue: 1

4 Equipment: Pre-Start Ventilation System

5 Manufacturer: EXPO Technologies Limited

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

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 2804 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 IEC 60079-0: 2018 EN IEC 60079-7:2015+A1:2018

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 be as detailed in section 12.1, overleaf:

DANAK
PROD Reg.No. 7044
Member of EA MLA

On behalf of ExVeritas

Peter Lauritzen
Managing Director

This certificate may only be reproduced in its entirety and without any change, schedule included.
The status of this certificate can be verified at www.exveritas.com
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

12.1 Marking

Standard version

 II 2G Ex eb IIC T5 Gb Ta = -20°C to +60°C

Standard version with /ET or /ES

 II 2G Ex eb ia IIC T5 Gb Ta = -20°C to +59°C…or…II 2G Ex eb ia IIC T4 Gb Ta = -20°C to +60°C

Low temperature version

 II 2G Ex db eb IIC T3 or T4* Gb Ta = Ta -60°C to +60°C * Dependent upon heater

Low temperature version with /ET or /ES

 II 2G Ex db eb ia IIC T3 or T4* Gb Ta -60°C to +60°C … * Dependent upon heater

The following line is added to the Pre-start Ventilation System designation table after the DXXX option:

LT = Low Temperature option

13 Description of Equipment or Protective System

The Expo Technologies Pre-Start Ventilation System is intended to provide pre-start ventilation for motors in a hazardous area. The equipment consists of a control unit and a relief valve, which contains various electrical, mechanical, and pneumatic components for the control of ventilation gas to an associated motor (not included in this certificate), at a set flow rate and for a predetermined time. Alternative arrangements include the provision of an electronic timer, a solenoid valve, and the option for extended or continuous ventilation. A low temperature version is available which includes a certified heater and thermostat.

The following representative placeholder indicates the order of the model number. This disambiguation comprehensively defines the part numbers using the characteristic letters which are defined in the table overleaf.

Part Number: a b c d e

This certificate may only be reproduced in its entirety and without any change, schedule included.
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

Characteristic letter	Definition
a - Size or Capacity	1 = Flow rate up to 225 l/min 2 = Flow rate up to 450 l/min 3 = Flow rate up to 1500 l/min 4 = Flow rate up to 3000 l/min 5 = Flow rate up to 6000 l/min 6 = Flow rate up to 9000 l/min 7 = Flow rate up to 14000 l/min
b - Pre-start Ventilation Type	PV = Pre-start Ventilation PP = Pre-start Ventilation (alternative)
c - Control Unit Enclosure Material/Mounting Configuration	al = Aluminium alloy cs = Mild steel, painted ss = Stainless steel bp = Back Plate only co = Chassis only pm = Panel mounting nm = Non-Metallic
d - Start Option	LS = Local start using start switch on PV/PP system RS## = Remote start using Ex rated solenoid kit
e - Fitting Option	A = ANSI flange connection fittings used D = DIN flange connection fittings used B = BSP Pipe connection fittings used N = NPT Pipe connection fittings used # = letter showing non-certified pipe fitting

Option codes (Added only if used)

FM	Flow Meter(s) fitted on enclosure to indicate ventilation flow
IS	Internal Switches suitable for Ex i circuits.
MR	Mechanically Resets ventilation reset signal.
ER	Electronically Resets ventilation reset signal.
PR	Pneumatically Resets ventilation reset signal.
MT	Mechanical Timing used to time pre-start ventilation cycle
PT	Pneumatic Timing used to time pre-start ventilation cycle
ET	Electronic Timing used to time pre-start ventilation cycle
HP	High Pressure sensor fitted to prevent over pressure.
OV	Outlet valve, pneumatically operated.
PA	"Ex" switch(es) built-in, with/without "Ex" junction box.
SP	Secondary Pre-Ventilation supply options.
SS	Separate Supply for Protective gas and Logic air.
TW	Twin (or more) outputs for two or more separate ventilated enclosures ventilated in parallel.
HS	High Supply Pressure up to 16 Bar.
CV	Ventilation sustained indefinitely after completion of ventilation cycle
EV	Ventilation extended for predefined period of time after completion of ventilation cycle
DXXX	Special design, no certification related options
LT	Low Temperature option
/ES	Electronic timer with EPPS
/ET	Electronic timer with the battery

This certificate may only be reproduced in its entirety and without any change, schedule included.
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

13.1 Details of change:

The following changes are introduced in issue 1 of this certificate:

- Update to the latest editions of 60079-0 and 60079-7.

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R2909/A/1	19/10/2020	0	Initial issue of the Prime Certificate
R3380/A/1	10/11/2021	1	Issue of the first variation, see section 13.1 for details.

14.2 Compliance Drawings:

Title:	Drawing No.:	Rev. Level:	Date:
Ventilation Complete Reset Options for PV system.	SD8036	03	11/11/2020
Pre-start Ventilation Housing.	SD8038	06	11/11/2020
Pre-start Ventilation Model Numbers.	SD8043	04	25/11/2020
Circuit Diagram for PV/PP System.	SD8044	06	11/11/2020
High Pressure Option 'HP'.	SD8049	03	11/11/2020
Timing Options for PV System.	SD8066	06	11/11/2020
Pre-Start Ventilation System Certification Label (ATEX).	SD8076	4	13/09/2021
PV & PP System Low Temp. Wiring (Typical).	SD8312	02	11/11/2020
PV & PP Low Temperature Housing.	SD8313	02	11/11/2020

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- The intended use of this equipment is as a pre-start ventilation system. It is the user's responsibility to ensure the correct functionality of the equipment when in use.
- The equipment enclosure may contain RTDs or simple resistive switches. It is the user's responsibility to ensure that these are connected into suitably certified intrinsically safe circuits.
- The Pre-Start Ventilation System, low temperature version, shall be protected by a safety related system that ensures that it cannot be energised if the temperature of the air inlet or controller unit falls below -20°C. This system shall utilise the RTDs that are fitted to the control unit to provide the appropriate level of safety integrity, i.e. a level of operational safety of Cat 3 according to EN 954-1 for Category 2 (Zone 1) applications; note that these RTDs have not been assessed as a safety related device in accordance with EHSR 1.5 of the Directive 2014/34/EU.
- When the equipment is provided with an intrinsically safe solenoid valve, the user must ensure that any associated line inductance is within the parameters of the solenoid valve certificate.

15.2 Conditions for Use (Routine tests)

- None

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.

This certificate may only be reproduced in its entirety and without any change, schedule included.
For help or assistance relating to this certificate, contact info@exveritas.com.
ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.