



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 FME 11.0006X

Issue No: 6

Certificate history:

Status: **Current**

Issue No. 6 (2019-04-08)

Issue No. 5 (2019-02-15)

Date of Issue: **2019-04-08**

Page 1 of 5

Issue No. 4 (2017-06-29)

Issue No. 3 (2016-06-14)

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

Issue No. 2 (2015-06-03)

Issue No. 1 (2013-04-03)

Issue No. 0 (2012-03-23)

Equipment: **SmartPurge SP2 and SP2 - Remote Control Panel**

Optional accessory:

Type of Protection: **Intrinsic safety 'i'; Encapsulation 'm'; Increased safety 'e'; Pressurized 'p' & Protection by enclosure 't'.**

Marking: **Control unit**

Ex eb ib mb [ib Gb] [p] IIC T4 Gb -20°C ≤ Ta ≤ 60°C

Ex tb [p] IIIC T135°C Db -20°C ≤ Ta ≤ 60°C

The Remote Control Terminal

Ex ib IIC T4 Gb -20°C ≤ Ta ≤ 60°C

*Approved for issue on behalf of the IECEx
Certification Body:*

Andrew Was

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](http://www.iecex.com).

Certificate issued by:

FM Approvals Ltd
1 Windsor Dials
SL4 1RS Windsor
United Kingdom



Member of the FM Global Group



IECEX Certificate of Conformity

Certificate No: IECEX FME 11.0006X Issue No: 6

Date of Issue: **2019-04-08** Page 2 of 5

Manufacturer: **Expo Technologies Limited**
Unit 2, The Summit, Hanworthy Road,
Sunbury-on-Thames,
Surrey, TW16 5DB,
United Kingdom
TW16 5DB
United Kingdom

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 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18 : 2017 Edition:4.1	Explosive atmospheres - Part 18: Protection by encapsulation "m"
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"
IEC 60079-7 : 2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/FME/ExTR11.0007/00](#)
[GB/FME/ExTR11.0007/03](#)
[GB/FME/ExTR11.0007/06](#)

[GB/FME/ExTR11.0007/01](#)
[GB/FME/ExTR11.0007/04](#)

[GB/FME/ExTR11.0007/02](#)
[GB/FME/ExTR11.0007/05](#)

Quality Assessment Report:

[GB/SIR/QAR07.0012/13](#)



IECEX Certificate of Conformity

Certificate No: IECEx FME 11.0006X

Issue No: 6

Date of Issue: 2019-04-08

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The SmartPurge 2 (SP2) is an electronic purge and pressurization control system consisting of a Control Unit containing the following: a power supply and switching module, a flow and pressure measuring unit and an electronic control unit. A display is provided for monitoring the status and for use during set-up.

Two versions of the SmartPurge2 are available, as a purge and pressurize control unit (P) and as a fan control unit (F). Both these versions are available with a universal voltage (M) or a low voltage (L) power supply. The SmartPurge 2 is housed within a stainless steel enclosure with an ingress protection rating of IP64.

The system can be connected to an optional Remote Panel which is housed in an aluminium enclosure.

The maximum service temperature is 60 °C.

SP2-ab-ss SmartPurge2 Purge Control Unit

a = P, or F

b = M, or L

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The painted surface and window of the SmartPurge 2 may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-1. Cleaning of the painted surface should only be done with a damp cloth.



IECEX Certificate of Conformity

Certificate No: IECEX FME 11.0006X

Issue No: 6

Date of Issue: 2019-04-08

Page 4 of 5

EQUIPMENT (continued):

Power Supply (Terminals 1, 2): 90-254 Vac or 11-28 Vdc Um = 254 Vac

Alarm Contact ratings

(Terminals 3,4): 6A at 250 Vac; 5A at 30 Vdc

(Terminals 5, 6 and 7, 8): 250V, 1A Fuse type

(Terminals 9, 10): 100mA (when b = M) or 500mA (when b = L)

Energy Limitation Parameters

	Terminal TB1	U _o (Vdc)	I _o (mA)	C _o (μF)	L _o (mH)	P _o (W)
SOV	1, 2	23.58	165.5	0.091	2.9	0.975
IP	3, 4	23.58	165.5	0.091	2.9	0.975
Remote Output	9, 10, 11, 12	8.465	405.1	5.145	0.48	0.857
External alarm	5, 6	5.88	5.9	Negligible	0	0.009
Over-ride	7, 8	5.88	5.9	Negligible	0	0.009

SmartPurge2 Purge Remote Panel

SRP-2 Energy Limitation parameters

U _i (Vdc)	I _i (mA)	C _i (μF)	L _i (mH)	P _i (W)
8.465	405.1	5.145	0.48	0.857



IECEX Certificate of Conformity

Certificate No: IECEX FME 11.0006X

Issue No: 6

Date of Issue: 2019-04-08

Page 5 of 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update to Power Supply Module and update to IEC 60079-18 Ed 4.1