



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

Certificate No.: **IECEx FME 11.0006X**

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Certificate history:

Status: **Current**

Issue No: 9

[Issue 8 \(2024-09-01\)](#)

[Issue 7 \(2023-07-19\)](#)

[Issue 6 \(2019-04-08\)](#)

[Issue 5 \(2019-02-15\)](#)

[Issue 4 \(2017-06-29\)](#)

[Issue 3 \(2016-06-14\)](#)

[Issue 2 \(2015-06-03\)](#)

[Issue 1 \(2013-04-03\)](#)

[Issue 0 \(2012-03-23\)](#)

Date of Issue: 2025-11-21

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

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] [pxb Gb] IIC T4 Gb -20°C ≤ Ta ≤ 60°C

Ex tb [pxb Db] 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:

**J.E.Marquedant**

Position:

**VP, Manager - Electrical Systems**

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.
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Certificate issued by:

**FM Approvals Ltd**  
**Voyager Place**  
**Maidenhead Berkshire SL6 2PJ**  
**United Kingdom**

**FM Approvals**



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Manufacturer: **EXPO Technologies Ltd**  
Unit 2, The Summit  
Hanworth Road  
Sudbury 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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

[IEC 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"  
Edition:4.1

[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

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

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/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/ExTR11.0007/07](#)

[GB/FME/ExTR11.0007/02](#)  
[GB/FME/ExTR11.0007/05](#)  
[GB/FME/ExTR11.0007/08](#)

Quality Assessment Report:

[GB/EXV/QAR24.0002/00](#)



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## 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.

Three versions of the SmartPurge2 are available, as a purge and pressurize control unit (P), as a fan control unit (F), and as a control unit with remote orifice (R). 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, F or R

b = M, or L

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The 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 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 TS 60079-32-1. Cleaning of the surface should only be done with a damp cloth.
2. The powder coated surface and the non-metallic window of the SmartPurge 2 Remote Control Terminal may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the 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 TS 60079-32-1. Cleaning of the powder coated surface and window should only be done with a damp cloth.



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## Equipment (continued):

Power Supply (Terminals 1, 2): 90-254 Vac or 11-28 Vdc  $U_m = 254 \text{ Vac}$

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) | $C_o$ ( $\mu\text{F}$ ) | $L_o$ (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        | 21.5                    | 1020       | 0.009     |
| Over-ride      | 7, 8          | 5.88        | 5.9        | 21.5                    | 1020       | 0.009     |

## SmartPurge2 Purge Remote Panel

## SRP-2 Energy Limitation parameters

| $U_i$ (Vdc) | $I_i$ (mA) | $C_i$ ( $\mu\text{F}$ ) | $L_i$ (mH) | $P_i$ (W) |
|-------------|------------|-------------------------|------------|-----------|
| 8.465       | 405.1      | 5.145                   | 0.48       | 0.857     |



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

Addition of alternative encapsulation materials

Addition of option 'R' to signify Control Unit with remote orifice

Addition of alternative LCD display