



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 02ATEX1129** Issue: **6**

4 Equipment: **Minipurge Interface Unit Type MIU/d**

5 Applicant: **Expo Technologies Limited**

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

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012/A11:2013 EN 60079-1:2014 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

For Types dA, dX and dT



II 2 G D
Ex db IIC T* Gb
Ex tb IIIC T*°C Db
Ta = -20°C to +*°C

For Types dK and dN



II 2 G D
Ex db IIB + H₂ T* Gb
Ex tb IIIC T*°C Db
Ta = -20°C to +*°C

Breather drain installed



II 2 G D
Ex db IIB+H₂ T3 Gb
Ta = -20°C to +55°C

* The temperature markings are T6 and T80°C for an ambient temperature range of -20°C to +40°C or T5 and T95°C for an ambient temperature range of -20°C to +55°C

A C Smith
Certification Manager

Project Number 70006555

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX1129
Issue 6

13 DESCRIPTION OF EQUIPMENT

The Minipurge Interface Units comprise a flameproof enclosure with various internal equipment dependent upon the application. The enclosures used are either Expo dA, dX, dT, dK or dN depending upon the size or type required.

The range of enclosures have the same basic geometry but are of differing sizes. The enclosures are all essentially square in profile with a circular lid. The joint between the lid and the enclosure forms a threaded flamepath; the lid is secured by means of a locking device. There is an option to include bosses for the installation of internal apparatus. Mounting is by means of two or more tapped holes in the rear face or by the use of mounting pads. Two or more protruding mounting lugs are optional.

External earthing facilities comprise M4 (or larger) earth studs on the surface of the box or mounting pads; the studs are equipped with nuts, washers and anti-rotation lugs. Alternatively or additionally, external earthing may be provided at the mounting lug(s). Tapped holes in the earth lugs between anti-rotation ribs are optional.

Internal earthing is provided either by a tapped hole in the internal rear face or by means of conventional rail-mounted earth terminals secured to the internal rear face.

“O” ring seals may be used to enhance the ingress protection rating.

The enclosures may be manufactured from copper-free aluminium, grey iron, S.G. iron, phosphor bronze, gunmetal or stainless steel.

Cable entry facilities are provided on the sides and rear of the enclosure.

To allow the control of the internal equipment, linear feed through devices, Type C9L, may be utilised as required. These are installed in the areas designated for cable entry devices. The feed through device comprises a threaded barrel with a central shaft secured with circlips at each end. The device is secured in the wall (or rear) of the enclosure by means of a locknut and optional thread sealing washer. An optional external “O” ring seal around the shaft, outside the flamepath, can improve the IP rating. The feed through can be fitted with unspecified external operators, e.g. push-buttons.

The scope of this certificate covers a range of internal components which may be installed within the flameproof enclosure, including limitations with respect to their location. Typical internal equipment comprises terminals, switches, contactors, relays and some intrinsically safe equipment. Although this certificate allows the inclusion of this intrinsic safety equipment, it does not endorse their intrinsic safety properties (see certificate conditions).

Variation 1

This variation introduced the following changes:

- i. The company name was changed from Expo-Telektron Safety Systems Ltd. to Expo Technologies Ltd. together with a change of company logo.
- ii. The Minipurge Interface Unit Type MIU/d was allowed to be used in the presence of combustible dust; the marking of the equipment to include the following:

 II 2 G D IP6X



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX1129
Issue 6

Variation 2

This variation introduced the following change:

- i. The Minipurge Interface Unit Type MIU/d was allowed to be used in a maximum upper ambient temperature of +55°C with a temperature classification of T5.

Variation 3

This variation introduced the following changes:

- i. The Minipurge Interface Unit Type MIU/d was assessed and found to comply with the requirements of EN 60079-0:2006, EN 60079-1:2004, EN 61241-0: 2006 and EN 61241-1: 2004.
- ii. The type dK and dN enclosures were introduced.

Variation 4 - This variation introduced the following change:

- i. The recognition of the Applicant's address change from Summer Road, Thames Ditton, Surrey KT7 0RH to Unit 2, The Summit, Hanworth Road, Sunbury on Thames, Surrey TW16 5DB.

Variation 5 - This variation introduced the following change:

- i. The option of using a Killark Type KDB breather drain was introduced resulting in an alternative marking.



II 2 G Ex d IIB+H₂ T3 Ta = -20°C to +55°C.

Variation 6 - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006, EN 60079-1:2004, EN 61241-0:2006 and EN 61241-1:2004 were replaced by EN 60079-0:2012/A11:2013, EN 60079-1:2014 and EN 60079-31:2014, the markings were updated accordingly, and removed from the description.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

| Issue | Date | Report no. | Comment |
|-------|------------------|------------|---|
| 0 | 7 June 2002 | R51A7166A | The release of prime certificate. |
| 1 | 15 August 2005 | R51A11088A | The introduction of Variation 1. |
| 2 | 2 September 2005 | R51A13816A | The introduction of Variation 2. |
| 3 | 27 April 2007 | R51L15967A | This Issue covers the following changes: <ul style="list-style-type: none"> • All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The company name was changed to Expo Technologies Ltd. • The introduction of Variation 3. |

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX1129
Issue 6

| Issue | Date | Report no. | Comment |
|-------|-----------------|------------|----------------------------------|
| 4 | 05 October 2012 | R29097A/00 | The introduction of Variation 4. |
| 5 | 30 June 2015 | R70006555A | The introduction of Variation 5. |
| 6 | 31 July 2015 | R70006555B | The introduction of Variation 6. |

15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

None

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 Only the internal components listed in the manufacturer's drawing EP90-6 may be installed in the Minipurge Interface Units, in accordance with the geometrical restrictions laid down in manufacturer's drawings EP90-8A, EP90-8X, EP90-8T and SD7529.

17.4 The scope of this certificate, though allowing 'intrinsically safe equipment' to be installed in accordance with condition 17.3, does not imply compliance with EN 60079-11: 2007 for either the installation or output parameters of such equipment.

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service

Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom

Certificate Annexe



Certificate Number: Sira 02ATEX1129
Equipment: Minipurge Interface Unit Type MIU/d
Applicant: Expo Technologies Limited

Issue 0

The drawings associated with this Issue were replaced by those listed in Issue 3.

Issue 1

The drawings associated with this Issue were replaced by those listed in Issue 3.

Issue 2

The drawings associated with this Issue were replaced by those listed in Issue 3.

Issue 3

| Drawing No. | Sheet | Rev. | Date | Description |
|-------------|--------|------|-----------|---|
| EP90-3dA | 1 of 1 | 6 | 21 Nov 06 | Ex d Boxes Dimensions Key |
| EP90-2dA | 1 of 1 | 3 | 21 Nov 06 | dA Box |
| EP90-8A | 1 of 1 | 4 | 05 Feb 07 | dA Box Contents |
| EP90-2dX | 1 of 1 | 2 | 21 Nov 06 | dX Box |
| EP90-8X | 1 of 1 | 4 | 05 Feb 07 | dX Box Contents |
| EP90-2dT | 1 of 1 | 2 | 21 Nov 06 | dT Box |
| EP90-8T | 1 of 1 | 4 | 05 Feb 07 | dT Box Contents |
| SD7528 | 1 of 1 | 1 | 22 Feb 07 | Key to Dimensions dK and dN Boxes |
| SD7529 | 1 of 1 | 1 | 22 Feb 07 | dK and dN Boxes Contents |
| EP90-5 | 1 of 1 | 4 | 05 Feb 07 | Earthing and Other Details |
| SD7485 | 1 of 1 | 2 | 15 Mar 07 | Ex d Box Sealing for Dust Certification |
| EP90-10 | 1 of 1 | 3 | 27 Feb 07 | Linear Feedthrough C9L |
| EP90-4dA | 1 to 9 | 5 | 20 Feb 07 | d Series Boxes Data Sheets |
| EP90-6 | 1 of 1 | 6 | 20 Feb 07 | Permitted Contents for MIU/d |
| SD7526 | 1 of 1 | 1 | 20 Feb 07 | MIU/d Certification Label ATEX/IECEx |

Issue 4

| Drawing No. | Sheets | Rev. | Date (Sira stamp) | Title |
|-------------|--------|------|-------------------|---------------------------|
| SD7526 | 1 of 1 | 2 | 05 Oct 12 | MIU/d Certification Label |

Issue 5

| Drawing | Sheets | Rev. | Date (Sira stamp) | Title |
|----------|--------|------|-------------------|--|
| EP90-4dA | 1 to 9 | 6 | 10 Apr 15 | d-Series Boxes Data Sheets |
| SD7526 | 1 to 2 | 3 | 10 Apr 15 | MIU/d Certification Label ATEX / IECEx |

Issue 6

| Drawing | Sheets | Rev. | Date (Sira stamp) | Title |
|----------|--------|------|-------------------|--------------------------------------|
| EP90-4dA | 1 to 9 | 7 | 30 Jul 2015 | d-Series Boxes Data Sheets |
| SD7526 | 1 to 2 | 4 | 30 Jul 2015 | MIU/d Certification Label ATEX/IECEx |

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service
Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom