



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 00ATEX1094X** Issue: **7**

4 Equipment: **AD-U Series Adaptors, RD-U Series Reducers and PD-U Series Stopping Plugs**

5 Applicant: **EX Innovations Limited**

6 Address: Jepson Court **Trading as Redapt**
Tancred Close Unit 1, 1 Kingsway South
Queensway Aldridge
Royal Leamington Spa Walsall
Warwickshire CV31 3RZ West Midlands WS9 8FS
UK 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 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007 EN 60079-31:2009

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:



I M2
II 2 GD
Ex d I/IIC Mb Gb
Ex e I/IIC Mb Gb
Ex tb IIIC Db
IP6X

Project Number 29744

A C Smith
Certification Manager

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13 DESCRIPTION OF EQUIPMENT

The AD-U and RD-U Series are ranges of hexagonal bodied metallic adaptors or reducers. Each comprises a hollow body with an external male thread and an internal female thread. The devices are used to convert an existing cable entry aperture to a different thread form and/or size. The body may optionally be fitted with an 'O' ring seal. Thread combinations are such that minimum wall thickness should be maintained.

The PD-U Series is a range of threaded stopping plugs each comprising a threaded body with a hexagonal socket for tightening. The devices are used to close unused apertures in associated component.

Design Options

- Male Threadforms: ISO Metric (to BS3463)
PG to DIN40430
NPT (ANSI/ASME B1.20.1)
NPS (ANSI/ASME B1.20.1)
ISO Pipe Thread (BS21) BSPP/BSPT
Imperial conduit ET BS31
BSP to BS21
Any threadform conforming to Table 3 of BS EN 50018.
- Material Options: Brass BS 2874 (CZ121)
Mild Steel to BS970 (EN1A)
Stainless Steel to BS970 (316)
- Plating Options: Metallic variants may be suitably plated to the appropriate British, European or ISO recognised standards.

Variation 1 - This variation introduced the following change:

- i. The re-design of the profile and the re-positioning of the marking onto the face of the devices.

Variation 2 - This variation introduced the following change:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents originally listed in section 9, EN 50014:1997 (amendments 1 & 2), prA1 EN 50018:1999, EN 50019:1994 and EN 50281-1-1:1998, were replaced by those currently listed, the markings in section 12 were updated accordingly and the conditions were modified to recognise the requirements of the latest standards.
- ii. The option to use aluminium as a material of construction was removed.

Variation 3 - This variation introduced the following change:

- i. The use of aluminium to BS 1474, 6082T6, as a material of manufacture was approved, a new condition of manufacture is introduced as a result of this change.
- ii. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, the documents previously listed in section 9, EN 60079-0:2006, IEC 60079-0:2007 (For guidance with respect to marking,) EN 61241-0:2006 and EN 61241-1:2004, were replaced by EN 60079-0:2009 and EN 60079-31:2009.

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Variation 4 - This variation introduced the following changes:

- i. The applicant has advised us that their address has been changed from Units 46 & 47, Darlaston Central Trading Estate, Salisbury Street, Darlaston, West Midlands WS10 8XB to that currently shown.

Variation 5 - This variation introduced the following change:

- i. The recognition that the company name and address has changed from Redapt Ltd, Westgate, Aldridge, West Midlands WS9 8FS to EX Innovations Ltd., Trading as Redapt at Jepson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire CV31 3RZ.
- ii. The introduction of a Condition of Certification/Manufacture.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	File/Report no.	Comment
0	12 May 2000	R51X5208A	The release of the prime certificate.
1	1 November 2000	R51X5208B	Re-issued to allow report number R51X5208B to replace R51X5208A.
2	7 December 2000	53V7400	The introduction of Variation 1.
3	15 October 2008	R51L16567A	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 introduction of Variation 2, as a result of the re-assessment, Special Conditions for Safe Use were introduced and therefore an 'X' suffix was added to the certificate number.
4	12 November 2009	R51A16567C	Re-Issued to amend the Special Conditions For Safe Use
5	18 July 2011	R19964A/00	The introduction of Variation 3.
6	28 May 2012	R27642A/00	The introduction of Variation 4.
7	15 January 2013	R29744A/00	The introduction of Variation 5.

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

- 15.1 The ADU M16 (M) to M20 (F) adaptors manufactured in brass, when installed in group I applications, shall only be installed where the risk of mechanical impact is low.
- 15.2 The PD-U series of stopping plugs are not to be used with any form of adaptors or reducers.
- 15.3 Only one adaptor or reducer is to be used with any single cable entry on the associated equipment.

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- 15.4 The interfaces between these devices and the associated enclosure cannot be defined; therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
- 15.5 At their point of mounting, these devices are suitable for use at the following temperatures dependant on the type of 'O' ring:

'O'-ring Material	Limiting temperature
None	-50°C to +180°C*
Nitrile	-20°C to +80°C
EPDM	-30°C to +125°C
Neoprene	-20°C to +100°C
Viton	-5°C to +180°C*
Silicone	-30°C to +180°C*
Fluorosilicone	-50°C to +150°C

* The maximum temperature is limited to 150°C for Group I applications.

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 In accordance with EN 60079-1:2007, the coating on joint surfaces of metallic devices that are electroplated shall be no more than 0.008 mm thick.
- 17.4 The female threads of adaptors are restricted to one size larger than the male thread size.
- 17.5 When manufactured in Aluminium, the components shall not be marked for use in Group I applications.
- 17.6 These products shall be marked in accordance with the information as specified in this certificate and related reports.

Certificate Annexe

Certificate Number: Sira 00ATEX1094X
Equipment: AD-U Series Adaptors, RD-U Series Reducers and PD-U Series Stopping Plugs
Applicant: EX Innovations Ltd., Trading as Redapt



Issue 0 and 1

Number	Sheet	Rev.	Date	Description
88-B-1E97	1 of 1	2	Jun 00	EExdeI/IIC Adaptors
88-B-2E97	1 of 1	2	Jun 00	EExdeI/IIC Reducers
88-B-3E97	1 of 1	2	Jun 00	EExdeI/IIC Dome Head Stopping Plugs
ATEX-01-PDM	1 of 1	1	Apr 00	Marking Arrangements For ATEX Products

Issue 2

Number	Sheet	Rev.	Date	Description
88-C-1E00	1 of 1	1	05 Oct 00	EExde I & IIC Certified Adaptors
88-C-2E00	1 of 1	1	05 Oct 00	EExde I & IIC Certified Reducers

Issue 3

Number	Sheet	Rev.	Date (Sira stamp)	Description
88-D-1E00	1 of 1	2	18 Aug 08	Ex d I & IIC and Ex e I & II Adaptors
88-D-1E00/2	1 of 1	1	18 Aug 08	Ex d I & IIC and Ex e I & II Adaptors
88-D-2E00	1 of 1	2	18 Aug 08	Ex d I & IIC and Ex e I & II Reducers
88-D-2E00/2	1 of 1	2	18 Aug 08	Ex d I & IIC and Ex e I & II Reducers
88-C-3E97	1 of 1	2	18 Aug 08	Ex d I & IIC and Ex e I & II Stopping Plugs
IECEx MD-01	1 of 1	2	18 Aug 08	Marking

Issue 4 No new drawings were introduced

Issue 5

Number	Sheet	Rev.	Date (Sira stamp)	Description
88-C-3E97	1 of 1	3	14 Apr 11	Ex d I & IIC and Ex e I & II Stopping Plugs
88-D-1E00	1 of 1	3	14 Apr 11	Ex d I & IIC and Ex e I & II Adaptors
88-D-2E00	1 of 1	3	14 Apr 11	Ex d I & IIC and Ex e I & II Reducers

Issue 6

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
IECEx MD-01	1 of 1	3	18 May 12	Marking Drawing

Issue 7

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
IECEx MD-01	1 of 1	4	14 Jan 13	Redapt Marking Label drawing

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