



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 SIR 08.0096X	Issue No: 4	<u>Certificate history:</u> Issue No. 4 (2014-06-10) Issue No. 3 (2013-01-30) Issue No. 2 (2012-06-07) Issue No. 1 (2009-11-12) Issue No. 0 (2008-11-13)
Status:	Current	Page 1 of 5	
Date of Issue:	2014-06-10		
Applicant:	EX Innovations Ltd., Trading as Redapt Jepson Court Tancred Close Queensway Royal Leamington Spa Warwickshire CV31 3RZ United Kingdom		
Electrical Apparatus:	BD-U Range of Breather/Drains		
<i>Optional accessory:</i>			
Type of Protection:	Flameproof, Increased Safety and Dust		
Marking:	Ex e I/IIC Mb Gb Ex d I/IIC Mb Gb Ex tb IIIC Db IP 6X		

Approved for issue on behalf of the IECEx
Certification Body:

A C Smith

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:

SIRA Certification Service
Rake Lane
Ecclestone
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



IECEx Certificate of Conformity

Certificate No: IECEx SIR 08.0096X Issue No: 4
Date of Issue: 2014-06-10 Page 2 of 5
Manufacturer: **EX Innovations Ltd., Trading as Redapt**
Unit 1
1 Kingsway South
Aldridge
Walsall WS9 8FS
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 electrical 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 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-1 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/SIR/ExTR08.0143/01	GB/SIR/ExTR12.0081/00	GB/SIR/ExTR12.0130/01
GB/SIR/ExTR13.0011/00	GB/SIR/ExTR14.0021/00	GB/SIR/ExTR14.0136/00

Quality Assessment Report:

GB/SIR/QAR06.0014/00	GB/SIR/QAR06.0014/01	GB/SIR/QAR06.0014/02
GB/SIR/QAR06.0014/03	GB/SIR/QAR06.0014/04	GB/SIR/QAR06.0014/05
GB/SIR/QAR06.0014/06		



IECEx Certificate of Conformity

Certificate No: IECEx SIR 08.0096X

Issue No: 4

Date of Issue: 2014-06-10

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The BD-U Breather/Drains are designed to allow moisture emission from either Flameproof Type 'Ex d' enclosures and Increased Safety Type 'Ex e' enclosures. Each device comprises a either a brass or a stainless steel body with an M20, M25, 1/2" NPT or 3/4" NPT entry thread. The body is machined such that a dust/moisture seal, manufactured from sintered copper/bronze alloy which can be optionally nickel plated, can be pressed in place. The device is designed to be screwed into the wall of an enclosure.

'O' ring seals materials fitted into the Breather/Drain are provided in nitrile, viton, EPDM, neoprene, silicone or fluorsilicone materials to suit the application.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The breather/drains are only suitable for bottom entry applications.
2. The interfaces between the breather/drains and 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.
3. The reference pressure is limited to 4000 kPa maximum.
4. 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
Nitrile	-20°C to +80°C
EPDM	-30°C to +125°C
Neoprene	-20°C to +100°C
Viton	-5°C to +150°C
Silicone	-30°C to +150°C
Fluorosilicone	-50°C to +150°C
5. The maximum surface temperature of the breather drain can be determined by the following:
Maximum surface temperature = Maximum ambient temperature + (1.5°C x 1.2)



IECEx Certificate of Conformity

Certificate No: IECEx SIR 08.0096X

Issue No: 4

Date of Issue: 2014-06-10

Page 4 of 5

EQUIPMENT (continued):

Conditions of manufacture

The Manufacturer shall comply with the following:

1. The manufacturer shall provide with each device a declaration stating the following:
 - Confirmation of the material, maximum bubble test pre size and minimum density
 - Special mounting instructions
2. These products shall be marked in accordance with the information as specified in this certificate and related reports.



IECEx Certificate of Conformity

Certificate No: IECEx SIR 08.0096X

Issue No: 4

Date of Issue: 2014-06-10

Page 5 of 5

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

Issue 1 – this Issue introduced the following change:

- 1 Re-Issued to amend the special points for noting and allow ExTR GB/SIR/ExTR08.0143/01 to replace GB/SIR/ExTR08.0143/00

Issue 2 – this Issue introduced the following change:

- 1 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.
- 2 The removal of a special point for noting.

Issue 3 – this Issue introduced the following change:

1. 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.
2. The introduction of a Condition of Manufacture.

Issue 4 – this Issue introduced the following change:

1. ExTR GB/SIR/ExTR12.0130/00 was replaced was replaced GB/SIR/ExTR12.0130/01 to recognise that Fee Reference Report Number Sira R28111A/00 was reviewed and re-issued as Sira R28111A/01.
2. The introduction of a Condition of Certification relating to surface temperature.
3. The certificate was changed from a Component 'U' certificate into an Equipment certificate at this variation.