



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 08.0024U

Issue No: 0

Certificate history:

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Issue No. 1 (2008-11-20)

Issue No. 0 (2008-05-13)

Status: **Current**

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Date of Issue: **2008-05-13**

Applicant: **Redapt Engineering Company Limited**
Units 46 & 47 Darlaston Central Trading Estate
Salisbury Street
Darlaston
West Midlands
WS10 8XB
United Kingdom

Equipment: **Breather / Drains**

Optional accessory:

Type of Protection: **Ex e and dust**

Marking: Ex e I / II C Mb Gb
Ex tb III C Db IP66
or
Ex e IIC Gb
Ex tb III C Db IP66

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

D R Stubbings BA MIET

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
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **Redapt Engineering Company Limited**
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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 : 2004 Edition:4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition:1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
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/ExTR08.0057/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0014/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Breather/Drains are designed to allow moisture emission from Increased Safety Type 'Ex e' enclosures. Each device comprises a brass body with an M20, M25 or M32 entry thread. The body is machined such that a dust/moisture seal, manufactured from Hydrophilic Polyethylene or sintered bronze, can be pressed in place. Drainage channels through the body allow for the passage of moisture through the filter.

The device may be screwed into the wall of an enclosure or into a through hole, being secured by a locknut.

Design Options

Alternative materials of manufacture: Groups I and II – Brass, Mild Steel or Stainless Steel

Group II only - Glass filled nylon (Durathon glass filled nylon BKV30) or Aluminium Alternative equivalent entry threads in NPT, NPS BSPP, BSPT, Imperial Conduit, ET or Pg.

See Annex for O-ring options and Schedule of limitations

SPECIFIC CONDITIONS OF USE: NO

Annex:

[08_0024U_Issue0_Annexe.pdf](#)

Annexe to: IECEx SIR 08.0024U
Applicant: Redapt Engineering Company Limited
Apparatus: Breather / Drains



O' ring seals

'O' ring seals materials fitted into the Breather/Drain may be provided in the following materials to suit the application:

Nitrile	EPDM	Silicone
Viton	Neoprene	Fluorosilicone

Surface coating:

The products may additionally be metallic plated to suit the application.

Schedule of limitations

The end user shall note the following limitations:

1. The breather/drains are only suitable for bottom entry applications within associated increased safety enclosures having a minimum wall thickness of 3.0 mm.
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 clearance holes for metric male threaded products, suitable for clearance hole applications of Increased safety enclosures are to have a diameter of 0.3 to 0.5 mm larger than the major diameter of the male thread.
4. The products shall be selected for a temperature range at their point of mounting based upon the combination of interface seal and material of construction:

Construction material	Limiting temperature
Metallic body	Dependant on filter and seal material
Nylon body	-50°C to +125°C, unless limited by filter material
HDPE dust/moisture seal	-50°C to +85°C
Metallic dust/moisture seal	Dependant on body and interface material
Interface O-ring Material	Limiting temperature
Nitrile	-30°C to +100°C
EPDM	-50°C to +125°C
Neoprene	-40°C to +100°C
Viton	-20°C to +180°C
Silicone	-50°C to +180°C
Fluorosilicone	-70°C to +150°C