



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 10.0069X

issue No.:1

Certificate history:

Issue No. 1 (2011-8-4)

Issue No. 0 (2010-8-26)

Status:

Current

Date of Issue:

2011-08-04

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Applicant:

Prysmian Cables & Systems Limited

Oak road
Wrexham Industrial Estate
Wrexham
LL13 9PH
United Kingdom

Electrical Apparatus:

A*EX Glands

Optional accessory:

Type of Protection:

Flameproof, Increased Safety and Dust

Marking:

**Ex d IIC/Ex e II
Ex tD A21 IP66/IP68**

Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)

Date:

2011-08-04

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: **Prysmian Cables & Systems Limited**
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Wrexham Industrial Estate
Wrexham
LL13 9PH
United Kingdom

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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: 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 61241-0 : 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/ExTR10.0205/00](#)

[GB/SIR/ExTR11.0175/00](#)

Quality Assessment Report:

[GB/SIR/QAR10.0023/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The A1EX, A1EXP, A2EX and A2EXP Range of Cable Glands are designed to allow the entry of circular un-armoured or braided cables into flameproof or increased safety enclosures without compromising the explosion protection provided by these enclosures, in accordance with relevant codes of practice.
For a full Description refer to the Annexe.

Conditions of Manufacture

The Manufacturer shall comply with the following condition of manufacture:

- 1 Reduced marking criteria are applicable to this equipment, therefore, the Applicant shall apply the information required by the associated Sira reports on the packaging supplied with these products, this shall include the name and address of Prysmian Cables & Systems Limited.

CONDITIONS OF CERTIFICATION: YES as shown below:

- 1 The following sizes of cable glands shall only be used for fixed installations; in addition, the user/installer shall ensure that the cables are adequately clamped:
A1EX M16, M20ss, M20s, M20, M25, M32, M40, M50, M63, M75s & M75
A1EXP M16, M20ss, M20s, M20, M25, M32, M40, M50, M63, M75s & M75
A2EX M32, M40, M50, M63, M75 & M75s
A2EXP M75s & M75
- 2 The PCP compression (displacement) seals used in the A1EX and A1EXP ranges of cable glands have a service temperature range of -20°C to +90°C; therefore, these glands shall only be used with equipment where the surface temperature, at the point of mounting, does not exceed this range
- 3 The silicone compression (displacement) seals used in the A2EX and A2EXP ranges of cable glands have a service temperature range of -50°C to +200°C; therefore, these glands shall only be used with equipment where the surface temperature, at the point of mounting, does not exceed this range.
- 4 The cable glands shall not be used with flameproof enclosures of Group IIC with a volume greater than 2000 cm cubed.



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

Issue 1 – this Issue introduced the following changes:	
1	The markings have been modified to permit the use of the trade name 'DRAKA' as an alternative to the existing trade name 'BICON'. The change has no effect on the explosion safety aspects of the cable glands.
2	A Condition of Manufacture has been clarified and is shown in the Equipment cell.

Annexe to: IECEx SIR 10.0069X Issue 1
Applicant: Prysmian Cables & Systems Limited
Apparatus: A*EX Glands



The A1EX, A1EXP, A2EX and A2EXP Range of Cable Glands are designed to allow the entry of circular un-armoured or braided cables into flameproof or increased safety enclosures without compromising the explosion protection provided by these enclosures, in accordance with relevant codes of practice.

The A1EX and A2EX types are a single sealed design and comprise:

- a brass gland body with an entry thread to tighten into an associated enclosure
- two skid washers made from either nylon 6 or fibre
- a compression (displacement) seal, the A1EX types utilise polychloroprene seals whereas the A2EX types use silicone
- a brass seal housing that screws onto the gland body and compresses the seal against the cable

The A1EXP and A2EXP types are a dual sealed design and comprise:

- a brass gland body with an entry thread to tighten into an associated enclosure
- four skid washers made from either nylon 6 or fibre
- two compression (displacement) seals, the A1EXP types utilise polychloroprene seals whereas the A2EXP types use silicone
- a brass gland barrel that screws onto the gland body and compresses the first seal against the cable
- a brass seal housing that screws onto the gland barrel and compresses the second seal against the cable

The gland and seal sizes are determined by the associated enclosure entry thread and cable take sizes:

Gland size	Entry Thread	Cable Size (mm)	
		Min.	Max.
16	M16 x 1.5	3.5	8.5
20ss	M20 x 1.5	3.5	8.5
20s	M20 x 1.5	8.0	11.5
20	M20 x 1.5	8.0	16.0
25	M25 x 1.5	11.5	21.0
32	M32 x 1.5	18.5	27.5
40	M40 x 1.5	24.0	34.0
50	M50 x 1.5	31.0	41.0
63	M63 x 1.5	40.0	52.5
75s	M75 x 1.5	52.5	58.0
75	M75 x 1.5	54.5	65.5

Design Options:

Alternative metallic materials of manufacture:

Brass to BS 2874:1986 grades CZ121 or CZ122 or better

Mild Steel to BS 970: Part 1:1991

Stainless Steel to BS 970: Part 4:1987

Aluminium to BS 1474:1987 or BS 1471:1972 grade 6082 T6 or better

All metallic materials may be surface coated to limit electrolytic reaction between dissimilar materials.

Annexe to: IECEx SIR 10.0069X Issue 1
Applicant: Prysmian Cables & Systems Limited
Apparatus: A*EX Glands



Alternative profiles:

Alternative profiles of construction of the seal housing, gland barrel and gland body components may be used; however, the minimum wall sections, the number of threads engaged and the thread engagement length are all maintained.

Alternative entry threads:

All entry threads that are within the dimensional parameters of the gland body and maintain compliance with the requirements of clause 5.3 of IEC/EN 60079-1:2007.