



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 07.0096X** issue No.:1
Status: **Current**
Date of Issue: **2012-12-20** Page 1 of 4

Certificate history:
Issue No. 1 (2012-12-20)
Issue No. 0 (2007-11-7)

Applicant: **Peppers Cable Glands Limited**
Stanhope Road
Camberley
Surrey GU15 3BT
United Kingdom

Electrical Apparatus: **A****, A*L**, A*LC*** and A*RC*** Cable Gland Ranges**
Optional accessory:

Type of Protection: **Flameproof, Increased Safety and Dust**

Marking: **Ex d IIC Gb
Ex e IIC Gb
Ex ta IIIC Da**

Approved for issue on behalf of the IECEx
Certification Body:


C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)

Date:



2012-12-20

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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Page 2 of 4

Manufacturer: **Peppers Cable Glands Limited**
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Surrey GU15 3BT
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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/ExTR07.0132/00](#)

[GB/SIR/ExTR12.0253/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0018/00](#)
[GB/SIR/QAR06.0018/03](#)

[GB/SIR/QAR06.0018/01](#)
[GB/SIR/QAR06.0018/04](#)

[GB/SIR/QAR06.0018/02](#)



IECEx Certificate of Conformity

Certificate No.: IECEx SIR 07.0096X

Date of Issue: 2012-12-20

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Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

All cable gland families and stopper box ranges manufactured by Pepper's Cable Gland's Limited have type code designations. These are shown in a matrix detailed in the manufacturer's documents, they are also shown in the manufacturer's instruction leaflets for the end user. These codes are unique to each and every cable gland and stopper box, and identify the various design options applicable to each cable gland family and stopper box range. A full description of the A****, A*L**, A*LC*** and A*RC***. Cable Gland Ranges can be found in the Annexe to this Certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. These cable glands are certified with one specific size of FLP sealing ring per gland size as supplied.
2. These cable glands shall not be used in enclosures where the temperature at the point of entry/mounting is outside the range:
-35°C to +90°C for the Neoprene (black) seal variants
-60°C to +180°C for the Silicone (white) seal variants
3. The cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
4. The A****, A*L**, A*LC*** and A*RC***range of cable glands, when installed in accordance with the manufacturer's instructions and with an appropriate enclosure on which they are fixed, are capable of providing an ingress protection of IP66 and IP68 (50 metres 7 days).
5. Where glands without sealing rings are installed in protection by enclosure (Ex t) equipment for use in explosive dust atmospheres, they may only be fitted into enclosures offering a minimum of 5 full threads, in accordance with IEC 60079-31:2008 clause 5.1.1.



IECEx Certificate of Conformity

Certificate No.: IECEx SIR 07.0096X

Date of Issue: 2012-12-20

Issue No.: 1

Page 4 of 4

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

Issue 1 – this Issue introduced the following changes:	
1	Following appropriate reassessment to demonstrate compliance with the requirements of the latest editions of the IEC 60079 series of standards, the documents previously listed, EN 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC61241-0:2004 and IEC 61241-1:2004 were replaced by those currently listed, the markings were updated accordingly, the Conditions of Manufacture were also amended.
2	Type of protection Ex t is upgraded from EPL Db to EPL Da. Following appropriate reassessment to demonstrate compliance with the additional requirements for Ex ta, the markings were updated accordingly.
3	The size range of the gable glands has been extended to include size 12 glands and entry threads of M12, the description being modified accordingly.
4	Introduction of conduit fittings to the range was approved. The gland may be connected to rigid or flexible conduit.
5	The reference system used for the ranges of glands was amended to incorporate the introduction of the alternative conduit connections, the tables in the description were modified to recognise this change.
6	The introduction of an alternative silicone and neoprene seal material was endorsed.
7	The service temperature range of the glands fitted with a neoprene seal was extended to -35°C to +90°C.
8	The cable glands, when installed in accordance with the manufacturer's instructions and with an appropriate enclosure on which they are fixed, are capable of providing an ingress protection of IP66 and IP68 (50 metres 7 days).
9	The description has been amended to recognise that the A2LF Cable Gland Ranges have changed to A****, A*L**, A*LC*** and A*RC***.

Annexe to: IECEx SIR 07.0096X Issue 1

Applicant: Peppers Cable Glands Limited
Electrical Apparatus: A****, A*L**, A*LC*** and A*RC*** Cable Gland Ranges



The **A****, A*L**, A*LC*** and A*RC*** cable gland range** is intended for use with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment). The A****, A*L**, A*LC*** and A*RC*** range have an ingress protection rating of IP66 and IP68. IP68 tested to a depth of 50 m immersion for a duration of 7 days.

The A**, A*L**, A*LC*** and A*RC*** range comprise:**

- A threaded entry body, including a groove to accommodate an optional O-ring seal, which tightens into an associated enclosure.
- A silicone or neoprene elastomeric sealing ring, which fits into the entry body to provide a flameproof seal around the outer sheath of the cable.
- An outer cap and skid washer and silicone or neoprene elastomeric sealing ring. The cap tightens onto the entry body whilst compressing the seal onto the outer sheath of the cable.

Glands are available in the size range 12 to 100 mm with ISO metric preferred size entry threads of M12 to M100.

Design Options:

Alternative designs:

- The glands may be fitted with an additional mid-cap, skid washer and elastomeric sealing ring to create a double seal configuration.
- The single seal configuration outer cap can be replaced with an alternative compression nut which will accept either male or female conduit.

Alternative nearest equivalent and recognised entry body component thread forms:

NPT to ANSI/ASME B1.20.1:1983, gauging to clause 8
NPSM to ANSI/ASME B1.20.1:1983, gauging to clause 9
BSPT to BS 21:1985 (ISO 7/1) standard threads only clause 5.4, gauging to clause 5A, system A
BSPP to BS 2779:1986 (ISO 228/1) class A full form external threads
PG to DIN 40430:1971
ET to BS 31:1940 (1979) Table A

Alternative metallic materials of manufacture:

Brass to BS 2874:1986 grades CZ121 (3Pb), or CZ121 (4Pb) or CZ122
Aluminium to BS 1474:1987 grade HE30TF
Stainless Steel to BS 970:Part 1:1991 grades 316L, 316S31, 303 or 304
Additionally, all metallic materials may be surface coated to limit electrolytic reaction between dissimilar materials, providing the coating does not alter the dimensions of the component part.

Annexe to: IECEx SIR 07.0096X Issue 1

Applicant: Peppers Cable Glands Limited

Electrical Apparatus: A****, A*L**, A*LC**** and A*RC*** Cable Gland Ranges



Gland Type: **A*L****

Available Part No's.:	A	*	L	*	*
		1		B	F
		2		S	E
		3		A	
		4			

Options:

1	Neoprene Seal with Lead Sheath Cable Continuity Washer
2	Neoprene Seal
3	Silicone Seal
4	Silicone Seal with Lead Sheath Cable Continuity Washer
A	Aluminium
B	Brass material
S	316 Stainless Steel material
F	Ex d (flameproof) and Ex e (Increased Safety) approvals
E	Ex e (Increased Safety) approval only

Gland Type: **A******

Available Part No's.:	A	*	*	*	*
		1	LDS	A	F
		2	RDC	B	E
		3	RDF	S	
		4	RDM		

Options:

1	Neoprene Seal with Lead Sheath Cable Continuity Washer
2	Neoprene Seal
3	Silicone Seal
4	Silicone Seal with Lead Sheath Cable Continuity Washer
LDS	Fixed Double seal
RDC	Double seal with Rotating flexible conduit connector
RDF	Double seal with rotating female thread conduit nut
RDM	Double seal with Rotating male thread conduit nut
A	Aluminium
B	Brass material
S	316 Stainless Steel material
F	Ex d (flameproof) and Ex e (Increased Safety) approvals
E	Ex e (Increased Safety) approval only

Annexe to: IECEx SIR 07.0096X Issue 1

Applicant: Peppers Cable Glands Limited

Electrical Apparatus: A****, A*L**, A*LC*** and A*RC*** Cable Gland Ranges



Gland Type: **A*LC*****

Available Part No's.:	A	*	LC	*	*	*
		1		H	A	F
		2		F	B	E
		3		M	S	
		4				

- Options:
- 1 Neoprene Seal with Lead Sheath Cable Continuity Washer
 - 2 Neoprene Seal
 - 3 Silicone Seal
 - 4 Silicone Seal with Lead Sheath Cable Continuity Washer
 - H Single seal with fixed hose connector
 - F Single seal with fixed female thread conduit connector
 - M Single seal with fixed male thread conduit connector
 - A Aluminium
 - B Brass material
 - S 316 Stainless Steel material
 - F Ex d (flameproof) and Ex e (Increased Safety) approvals
 - E Ex e (Increased Safety) approval only

Gland Type: **A*RC*****

Available Part No's.:	A	*	RC	*	*	*
		1		C	A	F
		2		F	B	E
		3		M	S	
		4				

- Options:
- 1 Neoprene Seal with Lead Sheath Cable Continuity Washer
 - 2 Neoprene Seal
 - 3 Silicone Seal
 - 4 Silicone Seal with Lead Sheath Cable Continuity Washer
 - C Single seal with rotating flexible conduit connector
 - F Single seal with rotating female thread conduit connector
 - M Single seal with rotating male thread conduit connector
 - A Aluminium
 - B Brass material
 - S 316 Stainless Steel material
 - F Ex d (flameproof) and Ex e (Increased Safety) approvals
 - E Ex e (Increased Safety) approval only