



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: 2

Certificate history:

Status: **Current**

Issue No. 2 (2018-05-29)

Issue No. 1 (2012-12-20)

Date of Issue: **2018-05-29**

Page 1 of 4

Issue No. 0 (2007-11-07)

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

Equipment: **A****, A*L**, A*LC*** and A*RC*** Cable Gland Ranges**

Optional accessory:

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

Marking:

Ex db IIC Gb
Ex eb IIC Gb
Ex ta IIIC Da

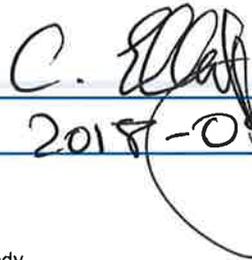
Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)


2018-05-29

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
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

sira
CERTIFICATION





IECEX Certificate of Conformity

Certificate No: IECEX SIR 07.0096X

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Page 2 of 4

Manufacturer: **Peppers Cable Glands Limited**
Stanhope Road
Camberley
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 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 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	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](#)

[GB/SIR/ExTR18.0075/00](#)

Quality Assessment Report:

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



IECEX Certificate of Conformity

Certificate No: IECEX SIR 07.0096X

Issue No: 2

Date of Issue: 2018-05-29

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.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the Annexe



IECEX Certificate of Conformity

Certificate No: IECEX SIR 07.0096X

Issue No: 2

Date of Issue: 2018-05-29

Page 4 of 4

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

Refer to the Annexe

Annex:

[IECEX SIR 07.0096X Annexe Iss2.pdf](#)

Annexe to: IECEx SIR 07.0096X Issue 2



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

The type A****, A*L**, A*LC*** and A*RC* range of cable glands 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). Construction materials are brass, mild steel, stainless steel or aluminium alloy. Glands are available in a single or double seal configuration and utilise a silicone or neoprene seal. The single seal configuration is available with a compression nut, which will accept either male or female conduit.

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

The cable gland range is as follows:

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			

Date: 29 May 2018

Page 1 of 7

Form 9530 Issue 1

Sira Certification Service

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Annexe to: IECEx SIR 07.0096X Issue 2

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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

Date: 29 May 2018

Page 2 of 7

Form 9530 Issue 1

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Type A*L**, A*LC**, A*LDS**, A*RCF**, A*RCM**, A*RDF** and A*RDM** Cable Glands

Gland Size	Standard Entry threads		Outer Sheath	
	Metric	NPT	Min	Max
12	M12	1/4" NPT	0.9	6.0
16	M16	3/8" NPT	4.0	8.4
20S	M20	1/2" NPT	7.2	11.7
20	M20	1/2" NPT	9.4	14.0
25	M25	3/4" NPT	13.5	20.0
32	M32	1" NPT	19.5	26.3
40	M40	1 1/4" NPT	23.0	32.2
50S	M50	1 1/2" NPT	28.1	38.2
50	M50	2" NPT	33.1	44.1
63S	M63	2" NPT	39.2	50.1
63	M63	2 1/2" NPT	46.7	56.0
75S	M75	2 1/2" NPT	52.1	62.0
75	M75	3" NPT	58.0	68.0
80	M80	3" NPT	62.2	72.0
85	M85	3" NPT	69.0	78.0
90	M90	3 1/2" NPT	74.0	84.0
100	M100	3 1/2" NPT	82.0	90.0

Date: 29 May 2018

Page 3 of 7

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Type A*RCC** and A*RDC** Cable Glands

Gland Size	Standard Entry threads		Cable Outer Sheath		Conduit	
	Metric	NPT	Min	Max	I/D Min	O/D Max
12-1	M12	1/4" NPT	0.9	5.4	6.8	10.3
12-2	M12	1/4" NPT	0.9	6.0	10.2	14.1
12-3	M12	1/4" NPT	0.9	6.0	9.1	14.3
12-4	M12	1/4" NPT	0.9	6.0	10.9	15.8
12-5	M12	1/4" NPT	0.9	6.0	7.8	13.0
16-1	M16	3/8" NPT	4.0	8.4	10.2	14.1
16-2	M16	3/8" NPT	4.0	8.4	10.9	15.8
16-3	M16	3/8" NPT	4.0	8.4	13.0	17.1
20S-1	M20	1/2" NPT	7.2	11.0	13.0	17.1
20S-2	M20	1/2" NPT	7.2	11.7	13.9	19.3
20S-3	M20	1/2" NPT	7.2	11.7	14.6	20.7
20-1	M20	1/2" NPT	9.4	14.0	16.9	22.3
20-2	M20	1/2" NPT	9.4	14.0	16.9	23.8
20-3	M20	1/2" NPT	9.4	14.0	18.7	24.8
20-4	M20	1/2" NPT	9.4	14.0	20.7	28.3
20-5	M20	1/2" NPT	9.4	14.0	13.9	19.3
25-1	M25	3/4" NPT	13.5	20.0	23.7	31.3
25-2	M25	3/4" NPT	13.5	19.0	21.1	26.8
25-3	M25	3/4" NPT	13.5	19.0	25.0	31.3
25-4	M25	3/4" NPT	13.5	20.0	20.7	28.3
32-1	M32	1" NPT	19.5	26.0	28.1	33.3
32-2	M32	1" NPT	19.5	26.3	30.4	40.8
32-3	M32	1" NPT	19.5	26.3	30.4	38.8
40-1	M40	1 1/4" NPT	23.0	32.2	36.4	46.8
40-2	M40	1 1/4" NPT	23.0	32.2	36.4	44.8
40-3	M40	1 1/4" NPT	23.0	32.2	37.6	45.3
50S-1	M50	1 1/2" NPT	28.1	38.2	48.4	55.8
50-1	M50	2" NPT	33.1	44.1	48.4	55.8
63S-1	M63	2" NPT	39.2	50.1	57.5	64.8
63-1	M63	2 1/2" NPT	46.7	53.6	57.5	64.8

Date: 29 May 2018

Page 4 of 7

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Specific Conditions of Use

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. The threaded entry component threads without interface O-ring seals installed in an explosive dust atmosphere, within threaded entries, shall only be fitted into enclosures that have either
 - parallel entries that will ensure that a minimum of 5 full threads of contact will be maintained, this is in accordance with clause 5.1.2 of IEC 60079-31: 2013,
 - tapered entries that will ensure that a minimum of 3 ½ full threads of contact will be maintained, this is in accordance with clause 5.1.2 of IEC 60079-31: 2013

Full Certificate Change History

Issue 1 – this Issue introduced the following changes:

- i. 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.
- ii. 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.
- iii. The size range of the cable glands has been extended to include size 12 glands and entry threads of M12, the description being modified accordingly.
- iv. Introduction of conduit fittings to the range was approved. The gland may be connected to rigid or flexible conduit.
- v. 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.
- vi. The introduction of an alternative silicone and neoprene seal material was endorsed.
- vii. The service temperature range of the glands fitted with a neoprene seal was extended to -35°C to +90°C.
- viii. 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).
- ix. The description has been amended to recognise that the A2LF Cable Gland Ranges have changed to A****, A*L**, A*LC*** and A*RC***.

Date: 29 May 2018

Page 5 of 7

Form 9530 Issue 1

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Issue 2 – this Issue introduced the following changes:

- i. To modify/introduce the following changes to types A*RCC** and A*RDC**, Cable Glands:
 - Correction of typographical dimensional errors within the current end user instruction manuals
 - gland size 12-2 outer seal cable range revised from: 0.9/5.4 to: 0.9/6.0
 - gland size 12-2 typical conduit range revised from: 6.8/10.3 to: 10.2/14.1
 - gland size 12-4 typical conduit range revised from: 9.1/14.3 to: 10.9/15.8
 - gland size 32-2 typical conduit range revised from: 30.4/38.2 to: 30.4/40.8
 - gland size 32-3 typical conduit range revised from: 30.4/40.2 to: 30.4/38.8
 - gland size 40-1 typical conduit range revised from: 36.4/46.2 to: 36.4/46.8
 - gland size 40-2 typical conduit range revised from: 36.4/44.2 to: 36.4/44.8
 - gland size 40-3 typical conduit range revised from: 37.7/44.7 to: 37.6/45.3
 - To introduce the following alternative NPT entry thread to the following gland sizes
 - Gland sizes 12-1, 12-2 & 12-3 supplied with a ¼" NPT entry thread
 - Gland sizes 16-1, 16-2 & 16-3 supplied with a 3/8" NPT entry thread
 - To introduce the following new gland sizes
 - Gland size 12-5 supplied with either a M12 or ¼" NPT entry thread
 - Gland size 20-5 supplied with either a M20 or 1/2" NPT entry thread
 - Gland size 25-4 supplied with either a M25 or 3/4" NPT entry thread
- ii. To introduce the following alternative NPT entry thread to the following gland sizes of types A*L**, A****, A*L**, A*LC*** and A*RC* Cable Glands:
 - Gland size 12 supplied with a ¼" NPT entry thread
 - Gland size 16 supplied with a 3/8" NPT entry thread.
- iii. The recognition of the 'standard' entry threads associated with every gland types gland sizes, in accordance with newly introduced generic bill of material drawing(s).
- iv. To permit all gland types, of parallel threaded entry threads, marked suitable for 'Exe' only to be modified to have a minimum thread length increased to 10 mm from 8 mm.
- v. To permit all gland types of parallel threaded entry threads to be manufactured with a longer than 'standard' thread length to suit the end use application.
- vi. To permit all gland types to be manufactured with a size larger than the 'standard' entry threads listed within the product description.
- vii. To recognise all gland types with the following alternate threaded entry threads complying with the requirements of IEC 60079-1:2001. Are intended to be used as replacement entry devices within existing installations with equipment that have threaded entries no longer permitted by the current edition of IEC 60079-1.
 - NPSM ANSI/ASME B1.20.1:1983
 - BSPT BS21:1985 (ISO 7/1; BS EN 10226-1:2004 'standard threads')
 - BSPP BS EN ISO 228-1 :2003; BS EN ISO 2228-2:2003 class A full form 'external threads'
 - PG DIN 40430:1971
 - ET BS 31:1940 (1979) Table 'B'

All alternative trade size thread forms are manufactured within the dimensional parameter of the standard entry threads of the gland entry body, and relevant constructional compliance length and engagement requirements in accordance with their product markings

- viii. To recognise the actual seal 'material specification' reference as a replacement for the seal 'material supplier'.
- ix. The brass materials of manufacture were updated and corrected.
- x. The aluminium materials of manufacture were updated and corrected.
- xi. The list of certified scheduled drawings was rationalised and reiterated for completeness including replacing of some drawing numbers and adding drawings for completeness.

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- xii. The recognition of minor drawing modifications; these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.
- xiii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-1:2007 Ed 6, IEC 60079-7:2006 Ed 4 and IEC 60079-31:2008 Ed 1, were replaced by IEC 60079-1:2014 Ed 7, IEC 60079-7:2015 Ed 5 and IEC 60079-31:2013 Ed 2, the markings were updated accordingly, and a Specific Condition of Use modified and amended to recognise the new standard edition. In addition the description was modified to clarify the certified cable gland types, the standard gland size 'entry threads ', and gland size range taking capabilities inclusive of changes carried out under this certificate variation.

Date: 29 May 2018

Page 7 of 7

Form 9530 Issue 1

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