



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 07.0097X 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 (2007-11-21)

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

Electrical Apparatus: **E****F*, D****F and C****E* Cable Gland Ranges**
Optional accessory:

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

Marking: **E****F* and D****F**
Ex d IIC Gb
Ex e IIC Gb
Ex ta IIIC Da
C****E*
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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Manufacturer: **Peppers Cable Glands Limited**
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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](#)



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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 E****F*, D****F and C****E* Cable Gland Ranges can be found in the Annexe to this Certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The ranges of cable glands are certified with one specific size of FLP sealing ring per gland size as supplied.
2. The ranges of 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 neoprene (black) seal variants
-60°C to +180°C for the silicone (white or red) seal variants
3. The E****F* and D****F 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).
4. The C****E* 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.
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.
6. If the E****F*, D****F and C****E* type cable glands only grip the cable sheath and do not clamp the armour, or if they are used to terminate unarmoured, braided or screened cables, then they shall only be used for fixed installations, hence the cables shall be effectively clamped to prevent pulling or twisting.



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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, IEC 60079-0:2004, IEC 60079-1:2003, IEC 60079-7:2001, IEC 61241-0:2004 and IEC 61241-1:2004 were replaced by those currently listed, the markings were updated accordingly and the Conditions of Manufacture were updated.
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 use of Aluminium as a material of construction was approved.
4	The introduction of an alternative silicone and neoprene seal material was endorsed.
5	The service temperature range of the glands fitted with a neoprene seal was extended to -35°C to +90° C.
6	The E****F* and D****F type 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).
7	The description has been amended to recognise that the CWLe has now been changed to C****E*, the E1WF has changed to E****F* and the D1WF has changed to D****F.
8	Conductive neoprene and lead seals have been removed as a sealing material option.

Annexe to: IECEx SIR 07.0097X Annexe Issue 1
Applicant: Peppers Cable Glands Limited
Electrical Apparatus: E****F*, D****F and C****E* Cable Gland Ranges



The **E****F*, D****F and C****E* Cable Gland Ranges** are intended for use with SWA/Woven Steel Wire/Steel Tape/Braid armoured cables. The E****F* and D****F ranges having an ingress protection rating of IP66 and IP68 (50 metres 7 days) and the C****E* ranges having an ingress protection rating of IP66.

The E**F* range comprise:**

- A threaded entry body to tighten into an associated enclosure; with design options to fit either an optional outer deluge seal or an integral earthing clamp.
- A silicone or neoprene elastomeric sealing ring, which fits into the entry body to provide a flameproof seal around the inner sheath of the cable. A continuity washer for use with lead sheathed cable may be fitted if required.
- An armour clamp ring and cone to clamp onto SWA/Woven Steel Wire/Steel Tape/Braid as appropriate. These also compress the seal onto the inner sheath of the cable with the aid of a mid-cap.
- A mid-cap for coupling internal seal and armour locking mechanisms onto the entry body.
- An outer cap, skid washer and silicone or neoprene elastomeric sealing ring. The cap tightens onto the mid-cap whilst compressing the seal onto the outer sheath of the cable with a skid washer. The elastomeric sealing ring also being available with an alternative reduced bore.

Glands are typically available in the size range 16 to 100 mm with ISO metric preferred sizes entry threads of M16 to M100.

Design Options:

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
Steel to BS 970:Part 1:1991 grades 220MO7Pb or 230MO7Pb
Stainless Steel to BS 970:Part 1:1991 grades 316S11 (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 07.0097X Annexe Issue 1

Applicant: Peppers Cable Glands Limited
Electrical Apparatus: E****F*, D****F and C****E* Cable Gland Ranges



The D**F range vary from the E****F* by:**

- The replacement of outer cap, skid washer, outer sheath elastomeric seal and mid-cap with an alternative cap tightening onto the entry body component.

The C**E range vary from the E****F* by:**

- The removal of the inner sheath elastomeric seal.
- This gland type does not have the option to be fitted with a continuity washer.

Additional assembly options are described by the following designation coding: -

Gland Type:	E****F*						
Available Part No's.:	E	*	*	*	*	F	*
		1	W	A	IE		R
		2	X	B			
		3		S			
		4					

Options:	1	Neoprene Seals
	2	Neoprene Seal with Lead Sheath Cable Continuity Washer
	3	Silicone Seal
	4	Silicone Seal with Lead Sheath Cable Continuity Washer
	W	Steel Wire Armour option
	X	SWA/Woven Steel Wire/ Steel Tape/ Braid
	A	Aluminium material
	B	Brass material
	S	316 Stainless Steel material
	IE	Integral Earth option
	R	Reduced Bore option

Gland Type:	D****F					
Available Part No's.:	D	*	*	*	*	F
		1	W	A	IE	
		2	X	B		
		3		S		
		4				

Options:	1	Neoprene Seals
	2	Neoprene Seal with Lead Sheath Cable Continuity Washer
	3	Silicone Seal
	4	Silicone Seal with Lead Sheath Cable Continuity Washer
	W	Steel Wire Armour option
	X	SWA/Woven Steel Wire/ Steel Tape/ Braid
	A	Aluminium material
	B	Brass material
	S	316 Stainless Steel material
	IE	Integral Earth option

Annexe to: IECEx SIR 07.0097X Annexe Issue 1

Applicant: Peppers Cable Glands Limited
Electrical Apparatus: E****F*, D****F and C****E* Cable Gland Ranges



Gland Type:	C****E*						
Available Part No's.:	C	*	*	*	*	E	*
		1	W	A	IE		R
		3	X	B			
				S			
Options:	1	Nitrile Seals					
Options:	3	Silicone Seals					
	W	Steel Wire Armour option					
	X	SWA/Woven Steel Wire/ Steel Tape/ Braid					
	A	Aluminium material					
	B	Brass material					
	S	316 Stainless Steel material					
	IE	Integral Earth option					
	R	Reducer Bore option					