



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 01ATEX1271X** Issue: **8**

4 Equipment: **E****F*, D****F and C**L**E* Range of Cable Glands**

5 Applicant: **Peppers Cable Glands Limited**

6 Address: Stanhope Road
Camberley
Surrey GU15 3BY
UK

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:


EN 60079-0:2006 EN 60079-1:2007 EN 60079-7:2007 EN 61241-0:2006 EN 61241-1:2004

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.


11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

E**F* and D****F Types**

 II 2GD
Ex d IIC
Ex e II
Ex tD A21 IP68

CL**E*Type**

 II 2GD
Ex e II
Ex tD A21 IP66

Project Number 51A20864
C. Index 07

C Ellaby
Certification Officer

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13 DESCRIPTION OF EQUIPMENT

The E****F*, D****F and C**L**E* ranges of cable glands are intended for use with SWA/Tape/Woven Steel Wire armoured cables. Each comprises a threaded entry body, elastomeric sealing ring, armour cone, clamp ring and compression cap. The entry body is available with an optional outer deluge seal or an integral earthing clamp. D****F glands have a single flameproof seal and the E****F* glands have a double seal arrangement of flameproof and outer IP seal with extra compression cap and skid washer to suit. C**L**E* glands have only the outer IP seal arrangement. Seals are available in silicone, neoprene, conductive neoprene or lead. Each gland type is available with an optional earth clamp arrangement on the entry body.

Glands are available in the size range 16 to 100 with ISO metric entry threads of M16 to M100 respectively. Glands with lead seals are only available in sizes up to 50 mm. Alternative thread forms and sizes ISO metric, NPT, NPSM, BSPT, BSPP, PG and ET are available. The E****F*, and D****F glands have an IP66/68 rating and the C**L**E* glands have an IP66 rating.

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

Gland Type:	E						
Available Part No's.:	E	*	*	*	*	F	*
		1	W	B	IE		R
		2	X	S			
		3	Z				
Options:	1	Neoprene Seals					
	2	Lead Sheath Cable Continuity Washer					
	3	Silicone Seals					
	W	Steel Wire Armour option					
	X	Woven Steel Wire Armour option					
	Z	Steel Tape Armour option					
	B	Brass material					
	S	316 Stainless Steel material					
	IE	Integral Earth option					
	R	Reduced Bore option					

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

Options:
1 Neoprene Seals
2 Lead Sheath Cable Continuity Washer
3 Silicone Seals
W Steel Wire Armour option
X Woven Steel Wire Armour option
Z Steel Tape Armour option
B Brass material
S 316 Stainless Steel material
IE Integral Earth option

Gland Type: **C**
Available Part No's.: **C * * L * * E ***
3 W B IE R
X S
Z

Options:
3 Silicone Seals
W Steel Wire Armour option
X Woven Steel Wire Armour option
Z Steel Tape Armour option
B Brass material
S 316 Stainless Steel material
IE Integral Earth option
R Reducer Bore option

Variation 1 - This variation introduced the following changes:

- i. To permit the batch number shown in the actual product marking to be removed.
- ii. The addition of cone & clamp ring part numbers.
- iii. The introduction of the C**L**E* glands that have an IP66 rating and the consequential modification of the special conditions for safe use.
- iv. The external cylindrical diameter of the M85, M90 and M100 glands to be enlarged by 5mm to increase the size of the marking area.



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Variation 2 - This variation introduced the following changes:

- i. The removal of code 2 lead conductive neoprene seals from the E****F*, range of cable glands.
- ii. The removal of code P lead inner seal from the E****F*, range of cable glands for lead sheathed cables and to replace it with a new code 2 neoprene seal used with a brass continuity washer.
- iii. The extension of the upper ambient service temperature limit to +85°C for cable glands incorporating neoprene seals (60° IRHD).
- iv. The modification of clause 15.2 in the special conditions for safe use.
- v. The removal of the temperature range markings from the seals.
- vi. The introduction of drawing amendments and up dates that are in-line with current practice.

Variation 3 - This variation introduced the following changes:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents originally listed in section 9, EN 50014:1997 (amendments 1 and 2), EN 50018:2000, EN 50019:2000 and EN 50281-1-1:1998, were replaced by those currently listed, the markings in section 12 were updated accordingly.

Variation 4 - This variation introduced the following changes:

- i. A clarification to the type designation of the E****F*, D****F and C**L**E* Range of Cable Glands.

Variation 5 - This variation introduced the following changes:

- i. 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.
- ii. The list of certified drawings was rationalised.



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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report No.	Comment
0	6 February 2002	R53A8359A	The release of the prime certificate.
1	17 December 2002	R53A8359B	Re-issued to allow report number R53A8359B to replace report number R53A8359A
2	17 December 2002	N/A	The introduction of Variation 1
3	19 April 2004 19 May 2004	R51V11550A	The introduction of Variation 2
4	12 April 2006	R51V11550A	Re-issued to incorporate variations 1 and 2 dated 17 December 2002 and 19 May 2004 respectively, this re-issue also clarifies the gland marking, amends the description and corrects clause 15.1
5	4 June 2009	R51A20139A	This Issue covers the following changes: <ul style="list-style-type: none"> All previously issued certification was rationalised into a single certificate, Issue 5, Issues 0 to 4 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. The introduction of Variation 3.
6	26 June 2009	N/A	Re-issued to correct the Conditions For Safe Use.
7	27 July 2009	R51A20631A	The introduction of Variation 4.
8	12 November 2009	R20864A	The introduction of Variation 5

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 The E****F*, and D***F range of cable glands shall not be used with Ex d IIC enclosures with a volume greater than 2000 cm³.

15.2 The C**L**E*, E****F*, and D****F range of cable glands shall not be used in enclosures where the temperature, at the point of contact exceeds the following temperatures.

- 20°C to +85°C for neoprene seal variants.
- 60°C to +180°C for the silicone seal variants.

15.3 Although the interface is not covered by this certificate, when fitted in accordance with the manufacturer's instructions, the manufacturer declares an IP rating of IP68 on E****F*, and D****F gland types and ensures the temperature range and chemical resistance properties of the O-rings or sealing washers are suitable for the intended application. This indicates that they have been tested at a depth of 25 m for a duration of 30 minutes when fitted into either threaded entries or Ex e enclosures that have plain hole entries with 0.5mm clearances.

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- 15.4 Although the interface is not covered by this certificate, when fitted in accordance with the manufacturer's instructions, the manufacturer declares an IP rating of IP66 on C**L**E*, gland types and ensures the temperature range and the chemical resistance properties of the O-rings or sealing washers are suitable for the intended application.
- 15.5 An ingress protection rating of IP66 and IP68 is assigned by the manufacturer to the E****F*, D****F and C**L**E*, range of cable glands, provided that at the interface the surface is flat, the hole for the equipment is drilled straight to an appropriate diameter, the limiting temperature is not exceeded and conditions 15.3 or 15.4 are met.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**
The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.
- 17 **CONDITIONS OF CERTIFICATION**
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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Certificate Annexe

Certificate Number: Sira 01ATEX1271X

Equipment: E****F*, D****F and C****E* Range of Cable Glands

Applicant: Peppers Cable Glands Limited



Issue 0 and Issue 1

Drawing No.	Sheet	Rev.	Date	Description
PCG/ATX/E1W	1 to 2	1	15 Jan 02	ATEX range glands for armoured cable E1W & D1W family
PCG/MATS/SB	1 of 1	1	20 Sep 01	Standard materials ATEX certified glands using "M", "V" and "N" components
PCG/ETDMV	1 of 1	1	20 Sep 01	Standard thread chart ATEX certified glands using "M", "V" and "N" components
PCG/ATX/1MIE	1 of 1	1	05 Nov 01	ATEX component entry body – Integral earth part 1MIE
PCG/ATX/1M	1 of 1	1	22 Nov 01	ATEX component entry body parts 1M, 1M9
PCG/STX/2M	1 of 1	1	26 Nov 01	ATEX component seal – parts 2MI, 2MIS, 2MIPB, 2MIC, 2MO, 2MOS, 2MOZS
PCG/ATX/2M	1 of 1	1	19 Sep 01	ATEX component seal – parts 2MI, 2MIS, 2MIPB, 2MO, 2MOS, 2MOZS
PCG/ATX/2MG	1 of 1	1	07 Nov 01	ATEX component seal – parts 2MIG
PCG/ATX/2MT	1 of 1	1	05 Nov 01	ATEX component seal – deluge part 2MTRI
PCG/ATX/3M	1 of 1	1	01 Mar 01	ATEX component cone parts 3M, 3MX
PCG/ATX/4M	1 of 1	1	07 Nov 01	ATEX component cap part 4M
PCG/ATX/5M	1 of 1	1	07 Nov 01	ATEX component middle cap part 5M
PCG/ATX/6M	1 of 1	1	07 Nov 01	ATEX component outer cap part 6M
PCG/ATX/10M	1 of 1	1	06 Nov 01	ATEX component clamp ring parts 10MW, 10MX, 10XX
PCG/ATX/11M	1 of 1	1	07 Nov 01	ATEX component skid washer parts 11MI, 11MO
PCG/ATX/16M	1 of 1	1	06 Nov 01	ATEX component integral earth clamp part 16M

Issue 2

Drawing No.	Sheet	Rev.	Date	Description
PCG/ATX/E1W	1 of 4	2	16 Aug 02	ATEX range glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	2 of 4	2	16 Aug 02	ATEX range glands for armoured cable E1W & D1W family
PCG/ATX/E1W	3 of 4	2	16 Aug 02	ATEX range glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	4 of 4	2	16 Aug 02	ATEX range glands for armoured cable E1W & D1W family
PCG/ATX/4M	1 of 1	2	20 Aug 02	ATEX component cap part 4M

Issue 3

Drawing No.	Sheet	Rev	Date	Description
PCG/ATX/E1W	1 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	2 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	3 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	4 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/2M	1 of 1	2	09 Apr 03	ATEX component seals
PCG/LW2	1 of 1	2	23 Jan 04	Continuity washer

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Certificate Annexe



Certificate Number: Sira 01ATEX1271X

Equipment: E****F*, D****F and C****E* Range of Cable Glands

Applicant: Peppers Cable Glands Limited

Issue 4

Drawing No.	Sheet	Rev.	Date	Description
PCG/ATX/E1W	1 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	2 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	3 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/ATX/E1W	4 of 4	3	22 Jan 04	Glands for armoured cable E1WF, D1WF & CWLe family
PCG/MATS/SB	1 of 1	1	20 Sep 01	Standard materials ATEX certified glands using "M", "V" and "N" components
PCG/ETDMV	1 of 1	1	20 Sep 01	Standard thread chart ATEX certified glands using "M", "V" and "N" components
PCG/ATX/1MIE	1 of 1	1	05 Nov 01	ATEX component entry body – Integral earth part 1MIE
PCG/ATX/1M	1 of 1	1	22 Nov 01	ATEX component entry body parts 1M, 1M9
PCG/STX/2M	1 of 1	1	26 Nov 01	ATEX component seal – parts 2MI, 2MIS, 2MIPB, 2MIC, 2MO, 2MOS, 2MOZS
PCG/ATX/2M	1 of 1	2	09 Apr 03	ATEX component seals
PCG/ATX/2MG	1 of 1	1	07 Nov 01	ATEX component seal – parts 2MIG
PCG/ATX/2MT	1 of 1	1	05 Nov 01	ATEX component seal – deluge part 2MTRI
PCG/ATX/3M	1 of 1	1	01 Mar 01	ATEX component cone parts 3M, 3MX
PCG/ATX/4M	1 of 1	2	20 Aug 02	ATEX component cap part 4M
PCG/ATX/5M	1 of 1	1	07 Nov 01	ATEX component middle cap part 5M
PCG/ATX/6M	1 of 1	1	07 Nov 01	ATEX component outer cap part 6M
PCG/ATX/10M	1 of 1	1	06 Nov 01	ATEX component clamp ring parts 10MW, 10MX, 10XX
PCG/ATX/11M	1 of 1	1	07 Nov 01	ATEX component skid washer parts 11MI, 11MO
PCG/ATX/16M	1 of 1	1	06 Nov 01	ATEX component integral earth clamp part 16M
PCG/LW2	1 of 1	2	23 Jan 04	Continuity washer

Issue 5

Drawing No.	Sheets	Rev.	Date	Description
PCG/ATX/E1W	1 to 4	4	27 Apr 09	General Arrangement
PCG/ETDMV	1 of 1	4	02 Jun 09	Standard Thread Chart

Issues 6 and 7 No new drawings were introduced.

Issue 8 (The following is a rationalised list that defines all drawings that are currently applicable)

Drawing No.	Sheets	Rev.	Date	Description
PCG/ATX/E1W	1 to 4	5	05 Nov 09*	ATEX range glands for armoured cable E1W & D1W family
PCG/MATS/SB	1 of 1	2	12 Oct 09*	Standard materials ATEX certified glands using "M", "V" and "N" components
PCG/ETDMV	1 of 1	5	11 Sep 09*	Standard thread chart ATEX certified glands using "M", "V" and "N" components
PCG/ATX/1MIE	1 of 1	1	05 Nov 01	ATEX component entry body – Integral earth part 1MIE
PCG/ATX/1M	1 of 1	1	22 Nov 01	ATEX component entry body parts 1M, 1M9
PCG/STX/2M	1 of 1	1	26 Nov 01	ATEX component seal – parts 2MI, 2MIS, 2MIPB, 2MIC, 2MO, 2MOS, 2MOZS
PCG/ATX/2M	1 of 1	1	19 Sep 01	ATEX component seal – parts 2MI, 2MIS, 2MIPB, 2MO, 2MOS, 2MOZS
PCG/ATX/2MG	1 of 1	1	07 Nov 01	ATEX component seal – parts 2MIG

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Drawing No.	Sheets	Rev.	Date	Description
PCG/ATX/2MT	1 of 1	1	05 Nov 01	ATEX component seal – deluge part 2MTRI
PCG/ATX/3M	1 of 1	4	05 Nov 09*	ATEX Component Cone Parts 3M, 3MX
PCG/ATX/4M	1 of 1	2	11 Sep 09*	ATEX component cap part 4M
PCG/ATX/5M	1 of 1	2	02 Oct 09*	ATEX component middle cap part 5M
PCG/ATX/6M	1 of 1	2	11 Sep 09*	ATEX component outer cap part 6M
PCG/ATX/10M	1 of 1	3	02 Oct 09*	ATEX component clamp ring parts 10MW, 10MX, 10XX
PCG/ATX/11M	1 of 1	1	07 Nov 01	ATEX component skid washer parts 11MI, 11MO
PCG/ATX/16M	1 of 1	1	06 Nov 01	ATEX component integral earth clamp part 16M
PCG/LW2	1 of 1	5	11 Sep 09*	Continuity Washer for Sira 01ATEX1271X

* This is the Sira stamp date.

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