



## EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC

EC-Type Examination Certificate Number : **BAS01ATEX2271X**

Equipment or Protective System: **TYPE CR\*\* CABLE GLANDS**

Manufacturer: **PEPPERS CABLE GLANDS LIMITED**

Address: **Camberley, Surrey, GU15 3BT**

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

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

**00(C)1048 dated 15 March 2002**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 50014: 1997 + Amds 1 & 2 EN 50018: 2000 EN 50019: 2000 EN 50281-1-1: 1998**  
except in respect of those requirements listed at item 18 of the Schedule.

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

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-

**Ex II 2 GD EEx d IIC EEx c II**

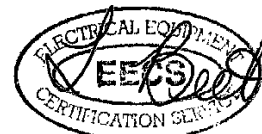
This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: **EECS 0809/01/015**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244  
internet: [www.baseefa.com](http://www.baseefa.com) e-mail: [baseefa.info.eecs@hsl.gov.uk](mailto:baseefa.info.eecs@hsl.gov.uk)



**I M CLEARE**  
DIRECTOR  
4 April 2002



13

**Schedule**

14

**EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2271X**

15

**Description of Equipment or Protective System**

The Type CR\*\* Cable Glands may be supplied in the size range M16 to M100, or with the equivalent size NPT, NPSM, BSPT, BSPP, PG or ET entry thread form. They are intended for use with an effectively filled and circular armoured cable and comprise the following components:-

- a. An entry component
- b. An elastomeric inner sealing ring
- c. An metal inner skid washer
- d. A compression nut
- e. An armour clamping cone
- f. A tapered clamp ring
- g. A middle nut
- h. An elastomeric outer sealing ring
- i. A nylon outer skid washer
- j. A back nut

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

**CR\*\***

1 - Neoprene Seals	_____	_____	B - Brass
3 - Silicone Seals			S - Stainless Steel
			R - Reduced Bore

16

**Report No.**

BASEEFA Certification Report No. 00(C)1048

17

**Special Conditions For Safe Use**

- 1. These glands are not suitable for use with group IIC flameproof enclosures having a volume greater than 2000cc.
- 2. Glands fitted with neoprene sealing rings (black) are suitable for use within an operating temperature range of -20°C to +80°C.

Glands fitted with silicone sealing rings (white) are suitable for use within an operating temperature range of -60°C to +180°C.

- 3. When the gland is used with increased safety and/or dust protected equipment, the entry thread shall be suitably sealed to maintain the ingress protection rating of the associated enclosure.



13

**Schedule**

14

**EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2271X**

18

**Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.0.2	Analysis of possible operating faults	BASEEFA Report No. 00(C)1048
1.0.3	Special checking and maintenance conditions	No special requirements
1.2.2	Components for incorporation or replacement	BASEEFA Report No. 00(C)1048
1.2.5	Additional means of protection	Not applicable
1.2.7	Protection against other hazards	BASEEFA Report No. 00(C)1048
2.1.	Category 1	Not applicable
2.2.1	Category 2G	BASEEFA Report No. 00(C)1048
2.2.2	Category 2D	BASEEFA Report No. 00(C)1048
2.3.	Category 3	Not applicable
3.	Requirements for protective systems	Not applicable

19

**DRAWINGS**

Number	Issue	Date	Description
PCG/ATX/CR	1	05/12/01	General Arrangement, Type CR1B Cable Gland
PCG/MATS/SB	1	20/9/01	Material Specifications
PCG/ETDMV	1	20/9/01	Thread Specifications
PCG/ATX/1V	1	20/3/02	Entry Component
PCG/ATX/82V	1	19/09/01	Inner Seal
PCG/ATX/91V	1	09/03/01	Inner Skid Washer
PCG/ATX/8V	1	04/10/01	Compression Nut
PCG/ATX/3V	1	07/11/01	Armour Clamp Cone
PCG/ATX/10V	1	07/11/01	Armour Clamp Ring
PCG/ATX/5V	1	20/3/02	Middle Nut
PCG/ATX/2M	1	19/09/01	Outer Seal
PCG/ATX/11M	1	07/11/01	Outer Skid Washer
PCG/ATX/6M	1	07/11/01	Back Nut

This certificate may only be reproduced in its entirety and without any change, schedule included.

BASEEFA List Keywords  
2CABLEGL



## EC TYPE-EXAMINATION CERTIFICATE VARIATION

**CERTIFICATE NUMBER** BAS01ATEX2271X Dated 4 April 2002  
**SIRA VARIATION NUMBER** 1 (ONE) Dated 2 May 2003

### VARIATION TO EQUIPMENT

To permit:

- 1 The use of CR1\* (neoprene) range of cable glands within an operating temperature range of 85°C; this change necessitates the amendment of special condition for safe use clause 17.2.
- 2 The use of the CR\*\* range of cable glands on a revised inner sheath cable range.
- 3 The use of the CR\*\* range of cable glands for installations with an ingress protection rating of IPX8.
- 4 The serial/batch number to be removed from the product marking and relocated on the packaging.
- 5 The introduction of additional minor dimensional and text changes to drawings.
- 6 The use of the CR\*\* range of cable glands with unarmoured, braided or screened cables and the application of a new special condition for safe use clause 17.4.
- 7 The removal of seal temperature marking on the seals

### DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
PCG/ATX/CR	1 of 1	2	10 Feb 2003	General arrangement
PCG/ATX/SV	1 of 1	2	16 Jan 2003	Middle cap component
PCG/ATX/82V	1 of 1	2	9 Apr 2003	Inner seal component
PCG/ATX/2M	1 of 1	2	9 Apr 2003	Outer seal component

### AMENDED SPECIAL CONDITION FOR SAFE USE

17.2 Glands fitted with neoprene sealing rings (black) shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -20°C to +85°C.

Glands fitted with silicone sealing rings (white) shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -60°C to +180°C.

### ADDITIONAL SPECIAL CONDITION FOR SAFE USE

17.4 If the CR\*\* range of cable glands only grip the outer sheath of the cable and do not clamp the cable 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.

**File No** 51A10029

**Report No.** R51A10029A

C Ellaby  
Certification Officer

This Variation and its schedules may only be reproduced in its entirety and without change

**Sira Certification Service**

Rake Lane, Eccleston, Chester, CH4 9JN, England  
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330  
Email: exhazard@siratc.co.uk



## EC TYPE-EXAMINATION CERTIFICATE VARIATION

**CERTIFICATE NUMBER**      BAS01ATEX2271X      Dated      4 April 2002


**SIRA VARIATION NUMBER**      2 (TWO)      Dated      21 April 2005

### VARIATION TO EQUIPMENT

To permit:

- 1      The CR\*\* Range of Cable Glands to include the following, new types:


**Type CR2\* Cable Glands** – incorporating neoprene seals and continuity washer

The marking of this equipment includes the following:  II 2GD  
EEx d IIC      EEx e II

The Type CR2\* Cable Glands are used with lead inner sheathed cables. They are formed by using a brass continuity washer within the Type CR1\* Cable Glands. The Type CR2\* Cable Glands are available with ISO metric entry threads of M20 to M100 (alternative thread forms are available in equivalent sizes) in cable gland sizes 20s through to 100, they can be made from either brass (B), stainless steel (S) and fitted with an optional reduced bore outer seal (R).

**Type CRD1\* Cable Glands** – incorporating neoprene seals


**Type CRD3\* Cable Glands** – incorporating silicone seals

The marking of this equipment includes the following:  II 2GD  
EEx d IIC      EEx e II

The Type CRD1\*, CRD2\* and CRD3\* Cable Glands are used with armoured, unarmoured, braided or screened sheathed cables. They are formed by removing the outer cap, outer seal and outer skid washer from the Type CR\*\* cable glands and fitting an alternative middle cap component, in addition these glands are fitted with an O-ring entry body seal. The Type CRD1\*, CRD2\* and CRD3\* Cable Glands are available with ISO metric entry threads of M20 to M100 (alternative thread forms are available in equivalent sizes) in cable gland sizes 16 through to 100, they can be made from either brass (B) or stainless steel (S).

**Type CRO1\* Cable Glands** – incorporating neoprene seals

**Type CRO3\* Cable Glands** – incorporating silicone seals

The marking of this equipment includes the following:  II 2GD  
EEx e II

The Type CRO1\*, CRO2\* and CRO3\* Cable Glands are used with armoured, non-lead sheathed cables. They are formed by removing the inner sealing ring and its associated skid washer from the Type CR\*\* cable glands, in addition these glands are fitted with an O-ring entry body seal. The Type CRO1\*, CRO2\* and CRO3\* Cable Glands are available with ISO metric entry threads of M20 to M100 (alternative thread forms are available in equivalent sizes) in cable gland sizes 16 through to 100, they can be made from either brass (B), stainless steel (S) and fitted with an optional reduced bore outer seal (R).

This Variation and its schedules may only be reproduced in its entirety and without change



## EC TYPE-EXAMINATION CERTIFICATE VARIATION

**CERTIFICATE NUMBER** BAS01ATEX2271X Dated 4 April 2002

**SIRA VARIATION NUMBER** 2 (TWO) Dated 21 April 2005

- 2 The CR1\*, CR2\*, CR3\*, CRD1\* and CRD3\* Ranges of Cable Glands to be marked IP68; this indicates that they have been tested at a depth up to 25 m for a duration of 30 minutes when fitted into either threaded entries or 'EEx e' enclosures that have plain hole entries with 0.5 mm clearances. The CR-0\*\* Cable Glands will be marked IP66.
- 3 The use of NBR O-ring interface seals with the CR\*\* Range of Cable Glands that are fitted with neoprene sealing rings.
- 4 The introduction of minor drawing changes.
- 5 The Special Conditions For Safe Use clause numbers 17.2 and 17.4 to be amended.

### DESCRIPTIVE DOCUMENTS

Drawing no:	Sheets	Rev.	Date	Description
PCG/ATX/CR	1 of 1	3	09 Dec 04	General arrangement
PCG/ATX/5V	1 of 1	3	22 Mar 04	Middle cap component
PCG/ATX/1V	1 of 1	2	23 Jan 04	Entry body
PCG/ATX/8V	1 of 1	2	04 Feb 04	Compression nut
PCG/LW3	1 of 1	2	23 Jan 04	Continuity washer
PCG/ATX/CRD	1 of 1	1	09 Dec 04	General arrangement
PCG/ATX/CR0	1 of 1	1	09 Dec 04	General arrangement
PCG/OR	1 of 1	1	17 Sep 01	O-ring seals
PCG/ATX/4V	1 of 1	1	06 Jul 04	ATEX component cap part 4V

### AMENDED SPECIAL CONDITIONS FOR SAFE USE

- 17.2 Glands fitted with neoprene sealing rings (black) shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -20°C to +85°C.
- Glands fitted with silicone sealing rings (white or red) shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -60°C to +180°C.
- 17.4 If the The CR1\*, CR2\*, CR3\*, CRD1\* and CRD3\* types of cable glands only grip the outer sheath of the cable and do not clamp the cable 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.

**File No** 51A10999

**Report No.** R51A10999A

This Variation and its schedules may only be reproduced in its entirety and without change

**C Ellaby**  
Certification Officer

### Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England  
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330  
Email: exhaszard@sira.co.uk

Sira Certification Service is a service of Sira Test & Certification Ltd