



#### 1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: Sira 03ATEX1479X Issue: 11

4 Equipment: CR\*\*\*\* Range of Barrier Cable Glands and Stopper Boxes

5 Applicant: **Peppers Cable Glands Limited** 

6 Address: Stanhope Road

Camberley

Surrey GU15 3BT

UK

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 60079-0:2012

EN 60079-1:2007

EN 60079-7:2007

EN 60079-31:2009

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- 11 This EU-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:

(ξx)

I M2 Ex d I Mb Ex e I Mb

 $(Ta = -60^{\circ}C \text{ to } +135^{\circ}C)$ 

r ,

 $\langle \mathcal{E}_{x} \rangle$ 

II 2 G D Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db

 $(Ta = -60^{\circ}C \text{ to } +135^{\circ}C)$ 

r



II 1D Ex ta IIIC Da

 $(Ta = -60^{\circ}C \text{ to } +135^{\circ}C)$ 

n. Jours.

Project Number 70058330

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N Jones

Certification Manager

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#### **EU-TYPE EXAMINATION CERTIFICATE**

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# 13 **DESCRIPTION OF EQUIPMENT**

The CR\*\*\*\* Range of Barrier Cable Glands & Stopper Boxes are metallic and are intended for use with differing cables or conductors dependent on their type. They allow the entry of the cable or conductors into flameproof, increased safety, restricted breathing and dust protected enclosures without compromising the explosion protection provided by the enclosure, in accordance with relevant codes of practice. All types comprise of various entry thread sizes, which are dependent upon gland size and their cable sealing ability range.

The CR\*\*\*\* Range of Barrier Cable Glands & Stopper Boxes, when installed with the silicone O-ring provided by the manufacturer, have an ingress protection rating of IP66 and IP68 (tested at a depth of 100 m for 7 days).

# Design Options for all CR\*\*\*\* Range of Barrier Cable Glands & Conduit Stopper Boxes Entry component and CR\*\*\*\* conduit nut internal thread forms:

ISO Metric to BS3643-1:2007 and BS 3643-3:2007 6g fit (male) 6H (female)

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

All entry and conduit threads are within the dimensional parameters of the gland body and comply with clause 5.3 of EN 60079-1:2007 and Clause C.2.2.

**Alternative metallic materials of manufacture** (the asterisk in the type number is replaced with a letter designation for one of the material types below):

Brass to BS 2874:1986 grades CZ121 (3Pb), or CZ121 (4Pb) or CZ122 Stainless Steel to BS 970:Part 1:1991 grades 316S11, 316S31 316L 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.

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## **EU-TYPE EXAMINATION CERTIFICATE**

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The **CR-U\*\* Range of Barrier Cable Glands** are suitable for use with unarmoured cables; they comprise:

- a threaded entry body to tighten into an associated enclosure; this is fitted with a silicone O-ring and internally coated with a release agent
- a ferrule, fitted with an external nitrile O-ring, which fits into the entry body to make a part chamber into which a two-part "PEPPERS T1000" epoxy putty setting compound is applied to provide an inner seal around the conductors
- a union nut that couples the entry body and ferrule together
- a seal housing, enclosing a white silicone, elastomeric, cable outer sheath seal and a plastic skid washer, that is screwed and secured into the ferrule with adhesive
- a back nut that screws into the seal housing to compress the outer sheath seal

| Standard Entry | Gland | Max. Ø over | Max. number | Outer sheath se | al range Ø (mm) |
|----------------|-------|-------------|-------------|-----------------|-----------------|
| thread size    | size  | cores (mm)  | of cores    | Min.            | Max.            |
| M20 x 1.5      | 16    | 10.4        | 15          | 3.4             | 8.4             |
| M20 x 1.5      | 20S   | 10.4        | 35          | 4.8             | 11.7            |
| M20 x 1.5      | 20    | 12.5        | 40          | 9.5             | 14.0            |
| M25 x 1.5      | 25    | 17.8        | 60          | 11.7            | 20.0            |
| M32 x 1.5      | 32    | 23.5        | 80          | 18.1            | 26.3            |
| M40 x 1.5      | 40    | 28.8        | 130         | 22.6            | 32.2            |
| M50 x 1.5      | 50S   | 34.2        | 200         | 28.2            | 38.2            |
| M50 x 1.5      | 50    | 39.4        | 400         | 33.1            | 44.1            |
| M63 x 1.5      | 63S   | 44.8        | 400         | 39.3            | 50.1            |
| M63 x 1.5      | 63    | 50.0        | 425         | 46.7            | 56.0            |
| M75 x 1.5      | 75S   | 55.4        | 425         | 52.3            | 62.0            |
| M75 x 1.5      | 75    | 60.8        | 425         | 58.0            | 68.0            |
| M80 x 2.0      | 80    | 64.4        | 425         | 61.9            | 72.0            |
| M85 x 2.0      | 85    | 69.8        | 425         | 69.1            | 78.0            |
| M90 x 2.0      | 90    | 75.1        | 425         | 74.1            | 84.0            |
| M100 x 2.0     | 100   | 80.5        | 425         | 81.8            | 90.0            |

#### **Design option:**

• A brass continuity washer may be fitted in the 20S to 100 sizes that are used with lead inner sheathed cables, glands with this modification are designated with a '2' in their type number.

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

Gland Type: CR-U

Available Part No's.: C R U \* \*

2 B
S

Options: 2 Lead Sheath Cable Continuity Washer

B Brass material

S Stainless Steel material

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#### **EU-TYPE EXAMINATION CERTIFICATE**

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The **CR-X\*\* Range of Barrier Cable Glands** are suitable for use with, unarmoured, braided and screened cables. They may also be used as a line bushing for terminating flying leads or for the direct inter-connection of associated enclosures; they comprise:

- a threaded entry body to tighten into an associated enclosure; this is fitted with a silicone O-ring and internally coated with a release agent
- a ferrule, fitted with an external nitrile O-ring, which fits into the entry body to make a part chamber into which a two-part "PEPPERS T1000" epoxy putty setting compound is applied to provide an inner seal around the conductors.
- a union nut that couples the entry body and ferrule together
- a back nut that is screwed and secured into the ferrule with adhesive.

| Standard Entry | Gland | Max. Ø over | Max. number | Max. outer    |
|----------------|-------|-------------|-------------|---------------|
| thread size    | size  | cores (mm)  | of cores    | sheath Ø (mm) |
| M20 x 1.5      | 20S   | 10.4        | 35          | 11.7          |
| M20 x 1.5      | 20    | 12.5        | 40          | 14.0          |
| M25 x 1.5      | 25    | 17.8        | 60          | 20.0          |
| M32 x 1.5      | 32    | 23.5        | 80          | 26.3          |
| M40 x 1.5      | 40    | 28.8        | 130         | 32.2          |
| M50 x 1.5      | 50    | 39.4        | 400         | 44.1          |
| M63 x 1.5      | 63    | 50.0        | 425         | 56.0          |
| M75 x 1.5      | 75    | 60.8        | 425         | 68.0          |
| M80 x 2.0      | 80    | 64.4        | 425         | 72.0          |
| M85 x 2.0      | 85    | 69.8        | 425         | 78.0          |
| M90 x 2.0      | 90    | 75.1        | 425         | 84.0          |
| M100 x 2.0     | 100   | 80.5        | 425         | 90.0          |

#### **Design option:**

• A brass continuity washer may be fitted in the 20S to 100 sizes that are used with lead inner sheathed cables, glands with this modification are designated with a '2' in their type number.

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

Gland Type: CR-X

Available Part No's.: C R X \* \* 2 B S

Options: 2 Lead Sheath Cable Continuity Washer

B Brass material

S Stainless Steel material

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## **EU-TYPE EXAMINATION CERTIFICATE**

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The **CR-C\*\*\* Range of Barrier Cable Glands** are suitable for use with circular, pliable wire, single wire and steel tape armoured cables along with braided/screened and unarmoured cables; they comprise:

- a threaded entry body to tighten into an associated enclosure, this fitted with a silicone O-ring and internally coated with a release agent.
- a cone, fitted with an external nitrile O-ring, which fits into the entry component to make a part chamber into which a two part "PEPPERS T1000" epoxy putty setting compound is applied to provide an inner seal around the conductors.
- a clamp ring that secures cable armour to the cone and also provides earth protection.
- a mid-cap component that fastens to the entry body to captivate the clamp ring, cone and epoxy putty.
- a back nut, enclosing a white, silicone, elastomeric, cable outer sheath seal and skid washer, that screws onto the external thread of the mid cap.

| Standard<br>Entry | Gland<br>size | Max. Ø over cores | Max.<br>number | Max. inner sheath Ø | (standar | neath Ø<br>d) (mm) | /thick | mour Ø<br>kness |
|-------------------|---------------|-------------------|----------------|---------------------|----------|--------------------|--------|-----------------|
| thread<br>size    |               | (mm)              | of cores       | (mm)                | Min.     | Max.               | Min.   | Max.            |
| M20 x 1.5         | 16            | 10.4              | 15             | 11.7                | 8.4      | 13.5               | 0.15   | 1.25            |
| M20 x 1.5         | 20S           | 10.4              | 35             | 11.7                | 11.5     | 16.0               | 0.15   | 1.25            |
| M20 x 1.5         | 20            | 12.5              | 40             | 14.0                | 15.5     | 21.1               | 0.15   | 1.25            |
| M25 x 1.5         | 25            | 17.8              | 60             | 20.0                | 20.3     | 27.4               | 0.15   | 1.6             |
| M32 x 1.5         | 32            | 23.5              | 80             | 26.3                | 26.7     | 34.0               | 0.15   | 2.0             |
| M40 x 1.5         | 40            | 28.8              | 130            | 32.2                | 33.0     | 40.6               | 0.2    | 2.0             |
| M50 x 1.5         | 50S           | 34.2              | 200            | 38.2                | 39.4     | 46.7               | 0.2    | 2.5             |
| M50 x 1.5         | 50            | 39.4              | 400            | 44.1                | 45.7     | 53.2               | 0.2    | 2.5             |
| M63 x 1.5         | 63S           | 44.8              | 400            | 50.1                | 52.1     | 59.5               | 0.3    | 2.5             |
| M63 x 1.5         | 63            | 50.0              | 425            | 56.0                | 58.4     | 65.8               | 0.3    | 2.5             |
| M75 x 1.5         | 75S           | 55.4              | 425            | 62.0                | 64.8     | 72.2               | 0.3    | 2.5             |
| M75 x 1.5         | 75            | 60.8              | 425            | 68.0                | 71.1     | 78.0               | 0.3    | 2.5             |
| M80 x 2.0         | 80            | 64.4              | 425            | 72.0                | 77.0     | 84.0               | 0.45   | 3.15            |
| M85 x 2.0         | 85            | 69.8              | 425            | 78.0                | 79.6     | 90.0               | 0.45   | 3.15            |
| M90 x 2.0         | 90            | 75.1              | 425            | 84.0                | 88.0     | 96.0               | 0.45   | 3.15            |
| M100 x 2.0        | 100           | 80.5              | 425            | 90.0                | 92.0     | 102.0              | 0.45   | 3.15            |

## **Design option:**

• A brass continuity washer may be fitted in the 20S to 100 sizes that are used with lead inner sheathed cables, glands with this modification are designated with a '2' in their type number.

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• The CR-C\*\* size 20s and 20 cable glands to be used with an alternative, cone component; in this form, the glands are designated CX-C\*\* (see details below) and are only suitable for braided cables:

| Standard<br>Entry | Gland<br>size | Max. Ø<br>over cores | Max.<br>number | Max. inner sheath Ø |      | heath Ø<br>d) (mm) |      | id Ø<br>m) |
|-------------------|---------------|----------------------|----------------|---------------------|------|--------------------|------|------------|
| thread<br>size    |               | (mm)                 | of cores       | (mm)                | Min. | Max.               | Min. | Max.       |
| M20 x 1.5         | 20S           | 10.4                 | 35             | 11.7                | 11.5 | 16.0               | 0.15 | 0.35       |
| M20 x 1.5         | 20            | 12.5                 | 40             | 14.0                | 15.5 | 21.1               | 0.15 | 0.5        |

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

Gland Type: CR-C

Available Part No's.: C R C \* \* \* 2 B F

B R S

Options: 2 Lead Sheath Cable Continuity Washer

B Brass material

S Stainless Steel material R Reduced Bore option

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#### **EU-TYPE EXAMINATION CERTIFICATE**

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The **CR-C\*\*R Range of Barrier Cable Glands** are suitable for circular, pliable wire, single wire and steel tape armoured cables along with braided/screened and unarmoured cables.

The same components as the CR-C\*\*\* range, however, the cable outer sheath seal has a reduced bore size to accommodate an alternative range of outer sheath cable sizes and is red in colour.

| Standard<br>Entry | Gland<br>size | Max. Ø over cores | Max.<br>number | Max. inner<br>Sheath Ø |      | heath Ø<br>d) (mm) | Max. A<br>Ø /thic | rmour<br>ckness |
|-------------------|---------------|-------------------|----------------|------------------------|------|--------------------|-------------------|-----------------|
| thread            |               | (mm)              | of cores       | (mm)                   | Min. | Max.               | Min.              | Max.            |
| size              |               |                   |                |                        |      |                    |                   |                 |
| M20 x 1.5         | 16            | 10.4              | 15             | 11.7                   | 6.7  | 10.3               | 0.15              | 1.25            |
| M20 x 1.5         | 20S           | 10.4              | 35             | 11.7                   | 9.4  | 12.5               | 0.15              | 1.25            |
| M20 x 1.5         | 20            | 12.5              | 40             | 14.0                   | 12.0 | 17.6               | 0.15              | 1.25            |
| M25 x 1.5         | 25            | 17.8              | 60             | 20.0                   | 16.8 | 23.9               | 0.15              | 1.6             |
| M32 x 1.5         | 32            | 23.5              | 80             | 26.3                   | 23.2 | 30.5               | 0.15              | 2.0             |
| M40 x 1.5         | 40            | 28.8              | 80             | 32.2                   | 28.6 | 36.2               | 0.2               | 2.0             |
| M50 x 1.5         | 50S           | 34.2              | 130            | 38.2                   | 34.8 | 42.4               | 0.2               | 2.5             |
| M50 x 1.5         | 50            | 39.4              | 200            | 44.1                   | 41.1 | 48.5               | 0.2               | 2.5             |
| M63 x 1.5         | 63S           | 44.8              | 400            | 50.1                   | 47.5 | 54.8               | 0.3               | 2.5             |
| M63 x 1.5         | 63            | 50.0              | 425            | 56.0                   | 53.8 | 61.2               | 0.3               | 2.5             |
| M75 x 1.5         | 75S           | 55.4              | 425            | 62.0                   | 60.2 | 68.0               | 0.3               | 2.5             |
| M75 x 1.5         | 75            | 60.8              | 425            | 68.0                   | 66.5 | 73.4               | 0.3               | 2.5             |
| M80 x 2.0         | 80            | 64.4              | 425            | 72.0                   | 71.9 | 79.4               | 0.45              | 3.15            |
| M85 x 2.0         | 85            | 69.8              | 425            | 78.0                   | 75.0 | 85.4               | 0.45              | 3.15            |
| M90 x 2.0         | 90            | 75.1              | 425            | 84.0                   | 82.0 | 91.4               | 0.45              | 3.15            |
| M100 x 2.0        | 100           | 80.5              | 425            | 90.0                   | 87.4 | 97.4               | 0.45              | 3.15            |

#### **Design option:**

- A brass continuity washer may be fitted in the 20S to 100 sizes that are used with lead inner sheathed cables, glands with this modification are designated with a '2' in their type number.
- The CR-C\*\* may be used with of an alternative outer sheath seal that is red in colour and has a reduced bore size that accommodates an alternative range of outer sheath cable sizes; in this form, the glands are designated CX-C\*\*R\*\* (see details below):

| Standard<br>Entry | Gland<br>size | Max. Ø over cores | Max.<br>number | Max. inner<br>Sheath Ø |      | heath Ø<br>d) (mm) | Brai | id Ø |
|-------------------|---------------|-------------------|----------------|------------------------|------|--------------------|------|------|
| thread<br>size    |               | (mm)              | of cores       | (mm)                   | Min. | Max.               | Min. | Max. |
| M20 x 1.5         | 20S           | 10.4              | 35             | 11.7                   | 9.4  | 12.5               | 0.15 | 0.35 |
| M20 x 1.5         | 20            | 12.5              | 40             | 14.0                   | 12.0 | 17.6               | 0.15 | 0.5  |

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#### **EU-TYPE EXAMINATION CERTIFICATE**

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The **CR-S\* Range of Conduit Stopper Boxes** are suitable for use with conductors carried in conduit, providing a flameproof barrier entry into enclosures. Additionally they may be used to terminate flying leads and as a line bushing for providing an electrical connection between associated equipment; they comprise:

- a threaded entry body to tighten into an associated enclosure, this is fitted with a silicone O-ring and internally coated with a release agent
- a ferrule, fitted with an external nitrile O-ring, which fits into the entry body to make a part chamber into which a two-part "PEPPERS T1000" epoxy putty setting compound is applied to provide an inner seal around the conductors or flying leads.
- a union nut that couples the entry body and ferrule together
- a conduit nut that is screwed and secured into the ferrule with adhesive.

| Standard Entry | Gland | Max. Ø over | Max. number | Max. Outer Ø |
|----------------|-------|-------------|-------------|--------------|
| thread size    | size  | cores (mm)  | of cores    | sheath (mm)  |
| M20 x 1.5      | 20    | 12.5        | 40          | 14.0         |
| M25 x 1.5      | 25    | 17.8        | 60          | 20.0         |
| M32 x 1.5      | 32    | 23.5        | 80          | 26.3         |
| M40 x 1.5      | 40    | 28.8        | 130         | 32.2         |
| M50 x 1.5      | 50    | 39.4        | 400         | 44.1         |
| M63 x 1.5      | 63    | 50.0        | 425         | 56.0         |
| M75 x 1.5      | 75    | 60.8        | 425         | 68.0         |
| M80 x 2.0      | 80    | 64.4        | 425         | 72.0         |
| M85 x 2.0      | 85    | 69.8        | 425         | 78.0         |
| M90 x 2.0      | 90    | 75.1        | 425         | 84.0         |
| M100 x 2.0     | 100   | 80.5        | 425         | 90.0         |

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

Gland Type: CR-S

Available Part Nos.: C R S \* \* B F

Options: B Brass material

S Stainless Steel materialF Female conduit optionM Male conduit option

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#### **Variation 1** - This variation introduced the following changes:

i. The CR-C\*\* size 20s and 20 cable glands to be used with an alternative, cone component; in this form, the glands are designated CX-C\*\* (see details below) and are only suitable for braided cables:

| Entry     | Gland | Max. Ø     | Max.     | Max. inner | Outer    | sheath  | Braid | l dia. |
|-----------|-------|------------|----------|------------|----------|---------|-------|--------|
| thread    | size  | over cores | number   | sheath     | (standar | d) (mm) |       |        |
| size      |       | (mm)       | of cores | (mm)       | Min.     | Max.    | Min.  | Max.   |
| M20 x 1.5 | 20S   | 10.4       | 8        | 11.7       | 11.5     | 16.0    | 0.15  | 0.35   |
| M20 x 1.5 | 20    | 12.5       | 14       | 14.0       | 15.5     | 21.1    | 0.15  | 0.5    |

## Design options for CR-C\*\*:

• The CR-C\*\* may be used with of an alternative outer sheath seal that is red in colour and has a reduced bore size that accommodates an alternative range of outer sheath cable sizes; in this form, the glands are designated CX-C\*\*R\*\* (see details below):

| Entry     | Gland | Max. Ø     | Max.     | Max. inner | Outer    | sheath  | Braid | l dia. |
|-----------|-------|------------|----------|------------|----------|---------|-------|--------|
| thread    | size  | over cores | number   | sheath     | (standar | d) (mm) |       |        |
| size      |       | (mm)       | of cores | (mm)       | Min.     | Max.    | Min.  | Max.   |
| M20 x 1.5 | 20S   | 10.4       | 8        | 11.7       | 9.4      | 12.5    | 0.15  | 0.35   |
| M20 x 1.5 | 20    | 12.5       | 14       | 14.0       | 12.0     | 17.6    | 0.15  | 0.5    |

• The inclusion of a brass continuity washer within the CX-C\*\* and CX-C\*\*R\*\* cable glands ranges enabling them to be used with lead inner sheathed cables; glands with this modification are identified with a '2' in their type number.

#### **Variation 2** - 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 and EN 50281-1-1:1998, were replaced by those currently listed, the markings in section 12 were updated accordingly.

#### **Variation 3** - This variation introduced the following changes:

i. A clarification to the type designation of the CR\*\*\*\* Range of Barrier Cable Glands and Stopper Boxes.

## **Variation 4** - This variation introduced the following changes:

- 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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#### **Variation 5** - This variation introduced the following changes:

- i. To allow the ambient range to be extended from  $-60^{\circ}$ C to  $+85^{\circ}$ C to  $-60^{\circ}$ C to  $+135^{\circ}$ C.
- ii. The introduction of a new protection coding 'Ex e IIC' is recognised, the descriptions have been amended to reflect the introduction of this new coding.
- iii. An assessment to the latest standards was conducted, reference to EN 61241-0 and EN 61241-0 was removed and IEC 60079-31:2008 introduced.
- iv. The CR-S Range can now be used as a Reversible Line Bushing, Peppers part no. 88NMM Conduit Nut Male.
- v. The drawings applicable to these changes were rationalised.
- vi. 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.

## **Variation 6** - This variation introduced the following changes:

- i. An increase of the IP rating degree of protection to IPX8 at 100 m for 7 days.
- ii. To allow the maximum number of cores permitted to be increased, description was modified accordingly.
- iii. The assessment of the dust marking against EPL 'Da'; as a result the marking at section 12 has been amended accordingly.
- iv. The correction of typographical errors in the marking detailed section 12 and the drawing list against issue 7.
- v. The CR-X Range can now be used as a Line Bushing for terminating flying leads or for the direct inter-connection of associated enclosures.

# **Variation 7** - This variation introduced the following changes:

- i. Following appropriate reassessment, EN 60079-0:2009 has been replaced by EN 60079-0:2012, the marking has been amended to remove the IP rating as a result of this assessment.
- ii. Following appropriate reassessment, IEC 60079-31:2008 has been replaced by EN 60079-31:2009, the Special conditions for Safe Use have been amended to reflect this assessment.
- iii. A number of minor modifications to the manufacturer's documents have been incorporated.

# 14 **DESCRIPTIVE DOCUMENTS**

# 14.1 Drawings

Refer to Certificate Annexe.

# 14.2 Associated Sira Reports and Certificate History

| Issue | Date             | Report number | Comment   |
|-------|------------------|---------------|---|
| 0     | 20 November 2003 | R51A10025A    | The release of the prime certificate.   |
| 1     | 11 May 2004      | R51A11518A    | The prime certificate was re-issued to introduce the modifications described in report number R51A11518A. |

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Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom





#### **EU-TYPE EXAMINATION CERTIFICATE**

# Sira 03ATEX1479X Issue 11

| Issue | Date              | Report number | Comment  |
|-------|-------------------|---------------|--|
| 2     | 1 April 2008      | R51A18054A    | <ul> <li>This Issue covers the following changes:</li> <li>All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 and 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.</li> <li>The introduction of Variation 1.</li> </ul>  |
| 3     | 04 June 2009      | R51A20139A    | The introduction of Variation 2.   |
| 4     | 26 June 2009      | N/A           | Re-issued to correct the Conditions For Safe Use.  |
| 5     | 27 July 2009      | R51A20631A    | The introduction of Variation 3.   |
| 6     | 12 November 2009  | R20864A       | The introduction of Variation 4.   |
| 7     | 28 April 2010     | R19249A/00    | The introduction of Variation 5.   |
| 8     | 7 February 2011   | R23283A/00    | The introduction of Variation 6.   |
| 9     | 12 September 2011 | R25954A/00    | Typographical errors were corrected.   |
| 10    | 05 March 2013     | R29953A/00    | The introduction of Variation 7.   |
| 11    | 26 April 2016     | R70058330A    | <ul> <li>This Issue covers the following changes:         <ul> <li>EC-Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU.</li> <li>(In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</li> </ul> </li> </ul> |

- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 The cable glands/stopper boxes shall not be used in enclosures where the temperature, at the point of entry/mounting, is outside of the range -60°C to +135°C.
- 15.2 The interface seals comply with the requirements of the standards listed in this report when the cable glands are fitted to a representative enclosure having a smooth flat mounting surface. In practice the interface between the male thread of the glands and their associated enclosure cannot be defined, therefore it is the users' responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
- 15.3 Where glands without sealing rings are installed in protection by enclosure (Ex ta) equipment for use in explosive dust atmospheres, they shall only be fitted into enclosures offering a minimum of 5 full threads, in accordance with EN 60079-31:2009 clause 5.1.1.

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# **EU-TYPE EXAMINATION CERTIFICATE**

Sira 03ATEX1479X Issue 11

# 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 MANUFACTURE**

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EU-Type Examination certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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**Sira Certification Service** 

Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom

**Certificate Number:** Sira 03ATEX1479X



**Stopper Boxes** 

**Applicant:** 

# **Peppers Cable Glands Limited**

#### Issue 0 and 1

| Drawing No.              | Sheet  | Rev. | Date      | Description                |
|--------------------------|--------|------|-----------|----------------------------|
| PCG/ATX/CR-C             | 1 of 1 | 2    | 11 Feb 04 | General arrangement        |
| PCG/ATX/CR-U             | 1 of 1 | 2    | 11 Feb 04 | General arrangement        |
| PCG/ATX/CR-S             | 1 of 1 | 1    | 29 Oct 03 | General arrangement        |
| PCG/ATX/31V              | 1 of 1 | 2    | 04 Dec 03 | Entry body                 |
| PCG/ATX/31VT             | 1 of 1 | 2    | 04 Dec 03 | Entry body                 |
| PCG/ATX/33V              | 1 of 1 | 2    | 05 Apr 04 | Cone                       |
| PCG/ATX/10V              | 1 of 1 | 1    | 07 Nov 01 | Clamp ring                 |
| PCG/ATX/5V               | 1 of 1 | 3    | 22 Mar 04 | Middle cap                 |
| PCG/ATX/2M               | 1 of 1 | 2    | 09 Apr 03 | Outer seal                 |
| PCG/ATX/11M              | 1 of 1 | 1    | 07 Nov 01 | Outer skid washer          |
| PCG/ATX/6M               | 1 of 1 | 1    | 07 Nov 01 | Outer cap                  |
| PCG/BR                   | 1 of 1 | 1    | 29 Aug 03 | O-ring                     |
| PCG/OR                   | 1 of 1 | 1    | 26 Oct 01 | O-ring                     |
| PCG/ETDMV                | 1 of 1 | 1    | 20 Sep 01 | Entry thread options chart |
| PCG/MATS/SB①             | 1 of 1 | 1    | 20 Sep 01 | Material options chart     |
| PCG/ATX/34V              | 1 of 1 | 2    | 05 Apr 04 | Ferrule                    |
| PCG/ATX/36V              | 1 of 1 | 1    | 13 Aug 03 | Union nut                  |
| PCG/ATX/39V2             | 1 of 1 | 2    | 23 Jan 04 | Seal housing               |
| PCG/ATX/81N              | 1 of 1 | 2    | 06 Sep 02 | Entry body                 |
| PCG/ATX/82V              | 1 of 1 | 2    | 09 Apr 03 | Seal                       |
| PCG/ATX/82N①             | 1 of 1 | 2    | 02 Sep 03 | Seal                       |
| PCG/ATX/91V              | 1 of 1 | 1    | 09 Mar 01 | Skid washer                |
| PCG/ATX/91N              | 1 of 1 | 1    | 09 Mar 01 | Skid washer                |
| PCG/ATX/88N              | 1 of 1 | 2    | 06 Sep 02 | Nut                        |
| PCG/ATX/38V2             | 1 of 1 | 2    | 23 Jan 04 | Union retaining cap        |
| PCG/ATX/35V <sup>2</sup> | 1 of 1 | 2    | 11 Feb 04 | Conduit nut                |
| PCG/ATX/35VT@            | 1 of 1 | 2    | 11 Feb 04 | Conduit nut                |
| PCG/ATX/35VC             | 1 of 1 | 2    | 11 Feb 04 | Conduit nut                |
| PCG/LW1                  | 1 of 1 | 3    | 05 Apr 04 | Continuity washer          |

① These drawings were amended by Sira on 7 Nov 2003.

#### Issue 2

| Drawing No.  | Sheet  | Rev. | Date (Sira stamp) | Description         |
|--------------|--------|------|-------------------|---------------------|
| PCG/ATX/CR-C | 1 of 1 | 3    | 01 Apr 08         | General arrangement |
| PCG/ATX/33VX | 1 of 1 | 1    | 01 Apr 08         | Cone                |

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# **Sira Certification Service**

Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom

② These drawings were amended by Sira on 30 Mar 2004.

**Certificate Number: Sira 03ATEX1479X** 



**Stopper Boxes** 

Applicant: Peppers Cable Glands Limited

#### Issue 3

| Drawing No.  | Sheets | Rev. | Date      | Title                                   |
|--------------|--------|------|-----------|---|
| PCG/ATX/CR-U | 1 of 1 | 3    | 27 Apr 09 | General Arrangement                     |
| PCG/ATX/CR-S | 1 of 1 | 2    | 27 Apr 09 | General Arrangement                     |
| PCG/ATX/CR-C | 1 of 1 | 4    | 27 Apr 09 | General Arrangement                     |
| PCG/ETDMV    | 1 of 1 | 4    | 02 Jun 09 | Standard Thread Chart                   |
| PCG/ATX/31V  | 1 of 1 | 4    | 23 Apr 09 | Barrier Gland Entry Body Part 31V       |
| PCG/ATX/31VT | 1 of 1 | 3    | 04 Mar 05 | Barrier Gland Entry Body - NPT Part 31V |
| PCG/ATX/81N  | 1 of 1 | 4    | 15 Mar 07 | Entry Body Part 81N                     |

**Issues 4 and 5** No new drawings were introduced.

#### Issue 6

| Drawing No.  | Sheets | Rev. | Date       | Title  |
|--------------|--------|------|------------|--|
| PCG/ATX/CR-C | 1 of 1 | 5    | 05 Nov 09* | General arrangement                                  |
| PCG/ATX/CR-U | 1 of 1 | 5    | 05 Nov 09* | General arrangement                                  |
| PCG/ATX/CR-S | 1 of 1 | 3    | 05 Nov 09* | General arrangement                                  |
| PCG/ATX/31V  | 1 of 1 | 4    | 23 Apr 09  | Entry body   |
| PCG/ATX/31VT | 1 of 1 | 4    | 15 Sep 09* | Entry body   |
| PCG/ATX/33V  | 1 of 1 | 5    | 15 Sep 09* | Cone   |
| PCG/ATX/10V  | 1 of 1 | 2    | 15 Sep 09* | Clamp ring   |
| PCG/ATX/5V   | 1 of 1 | 3    | 22 Mar 04  | Middle cap   |
| PCG/ATX/2M   | 1 of 1 | 2    | 09 Apr 03  | Outer seal   |
| PCG/ATX/11M  | 1 of 1 | 1    | 07 Nov 01  | Outer skid washer                                    |
| PCG/ATX/6M   | 1 of 1 | 2    | 11 Sep 09* | Outer cap  |
| PCG/BR       | 1 of 1 | 1    | 29 Aug 03  | O-ring   |
| PCG/OR       | 1 to 2 | 5    | 15 Sep 09* | O-ring   |
| PCG/ETDMV    | 1 of 1 | 5    | 11 Sep 09* | Entry thread options chart                           |
| PCG/MATS/SB  | 1 of 1 | 2    | 12 Oct 09* | Material options chart                               |
| PCG/ATX/34V  | 1 of 1 | 3    | 15 Sep 09* | Ferrule  |
| PCG/ATX/36V  | 1 of 1 | 2    | 15 Sep 09* | Union nut  |
| PCG/ATX/39V  | 1 of 1 | 2    | 23 Jan 04  | Seal housing   |
| PCG/ATX/81AN | 1 of 1 | 1    | 15 Sep 09* | Entry body   |
| PCG/ATX/82V  | 1 of 1 | 4    | 15 Sep 09* | Seal   |
| PCG/ATX/82N  | 1 of 1 | 3    | 15 Sep 09* | Seal   |
| PCG/ATX/91A  | 1 of 1 | 1    | 02 Oct 09* | ATEX Component Skid Washer – Parts 91AS, 91AB, 91ABT |
| PCG/ATX/88N  | 1 of 1 | 4    | 15 Sep 09* | Nut  |
| PCG/ATX/38V  | 1 of 1 | 2    | 23 Jan 04  | Union retaining cap                                  |
| PCG/ATX/35V  | 1 of 1 | 2    | 11 Feb 04  | Conduit nut  |
| PCG/ATX/35VT | 1 of 1 | 2    | 11 Feb 04  | Conduit nut  |
| PCG/ATX/35VC | 1 of 1 | 2    | 11 Feb 04  | Conduit nut  |
| PCG/LW1      | 1 of 1 | 6    | 15 Sep 09* | Continuity washer                                    |
| PCG/ATX/33VX | 1 of 1 | 2    | 15 Sep 09* | Cone   |

<sup>\*</sup> This is the Sira stamp date.

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# **Sira Certification Service**

Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom

**Certificate Number: Sira 03ATEX1479X** 



**Stopper Boxes** 

**Applicant:** Peppers Cable Glands Limited

#### Issue 7

| Drawing No.   | Sheets | Rev. | Date (Sira stamp) | Title   |
|---------------|--------|------|-------------------|---|
| PCG/ATX/CR-S  | 1 of 1 | 4    | 09 Apr 10         | Conduit Stopper Box CR-S Family                               |
| PCG/ATX/CR-C  | 1 of 1 | 6    | 09 Apr 10         | Barrier Glands For Armoured And Unarmoured Cable, CR-C Family |
| PCG/ATX/CR-U  | 1 of 1 | 6    | 09 Apr 10         | Barrier Glands For Unarmoured Cable, CR-U AND CR-X Families   |
| PCG/ATX/35VT  | 1 of 1 | 3    | 09 Apr 10         | Conduit Nut, Npt Thread Part 35V                              |
| PCG/LW2       | 1 of 1 | 7    | 09 Apr 10         | Continuity Washer Part LW2                                    |
| PCG/MATS/SB   | 1 of 1 | 3    | 09 Apr 10         | Standard Materials  |
| PCG/ATX/88NMM | 1 of 1 | 1    | 12 Apr 10         | Conduit Nut, Male Part 88NMM                                  |

#### **Issue 8**

| Drawing      | Sheets | Rev. | Date (Sira stamp) | Title   |
|--------------|--------|------|-------------------|---|
| PCG/ATX/CR-S | 1 of 1 | 5    | 21 Dec 10         | Conduit Stopper Box CR-S Family                               |
| PCG/ATX/CR-C | 1 of 1 | 7    | 21 Dec 10         | Barrier Glands For Armoured And Unarmoured Cable, CR-C Family |
| PCG/ATX/CR-U | 1 of 1 | 7    | 21 Dec 10         | Barrier Glands For Unarmoured Cable, CR-U AND CR-X Families   |
| PCG/ATX/36V  | 1 of 1 | 3    | 7 Feb 11          | ATEX Component Union Nut Part 36V                             |
| PCG/ATX/81AN | 1 of 1 | 2    | 7 Feb 11          | ATEX Component Entry Body Part 81AN                           |

**Issue 9** No new drawings were introduced.

#### Issue 10

| Drawing      | Sheets | Rev. | Date (Sira stamp) | Title   |
|--------------|--------|------|-------------------|---|
| PCG/ATX/CR-C | 1 of 1 | 8    | 01 Mar 13         | Barrier Glands For Armoured And Unarmoured Cable, CR- |
|              |        |      |                   | C Family  |
| PCG/ATX/CR-S | 1 of 1 | 6    | 01 Mar 13         | Conduit Stopper Box CR-S Family                       |
| PCG/ATX/CR-U | 1 of 1 | 8    | 01 Mar 13         | Barrier Glands For Unarmoured Cable, CR-U AND CR-X    |
|              |        |      |                   | Families  |
| PCG/ATX/2M   | 1 of 1 | 6    | 01 Mar 13         | Outer seal  |
| PCG/ATX/5V   | 1 of 1 | 6    | 01 Mar 13         | Middle cap  |
| PCG/ATX/6M   | 1 of 1 | 5    | 01 Mar 13         | Outer cap   |
| PCG/ATX/10V  | 1 of 1 | 4    | 01 Mar 13         | Clamp ring  |
| PCG/ATX/11M  | 1 of 1 | 3    | 01 Mar 13         | Outer skid washer                                     |
| PCG/ATX/31V  | 1 of 1 | 8    | 01 Mar 13         | Entry body  |
| PCG/ATX/31VT | 1 of 1 | 7    | 01 Mar 13         | Entry body  |
| PCG/ATX/33V  | 1 of 1 | 7    | 01 Mar 13         | Cone  |
| PCG/ATX/33VX | 1 of 1 | 3    | 01 Mar 13         | Cone  |
| PCG/ATX/35V  | 1 of 1 | 4    | 01 Mar 13         | Conduit nut   |
| PCG/ATX/35VC | 1 of 1 | 4    | 01 Mar 13         | Conduit nut   |
| PCG/ATX/35VT | 1 of 1 | 6    | 01 Mar 13         | Conduit nut   |
| PCG/ATX/38V  | 1 of 1 | 3    | 01 Mar 13         | Union retaining cap                                   |
| PCG/ATX/39V  | 1 of 1 | 5    | 01 Mar 13         | Seal housing  |
| PCG/ATX/81AN | 1 of 1 | 5    | 01 Mar 13         | Entry body  |
| PCG/ATX/82N  | 1 of 1 | 6    | 01 Mar 13         | Seal  |

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# **Sira Certification Service**

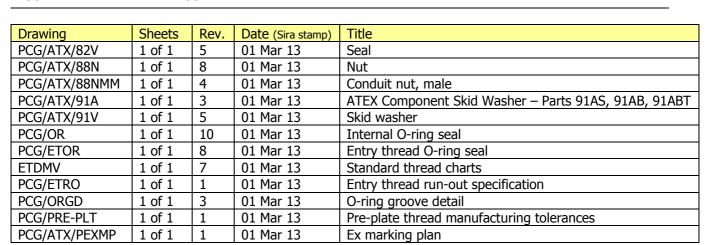
Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom

**Certificate Number: Sira 03ATEX1479X** 



**Stopper Boxes** 

Applicant: Peppers Cable Glands Limited



**Issue 11** No new drawings were introduced.

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CSA

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