



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX CML 19.0106X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2019-10-10

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

Equipment: **Type CR-***, CR-D** & CR-O*** Cable Glands**

Optional accessory:

Type of Protection: **Flameproof, Increased Safety, Dust, Restricted Breathing**

Marking: CR-O***
Ex eb IIC Gb
Ex ta IIIC Da
CR-*** and CR-D**
Ex db IIC Gb
Ex eb IIC Gb
Ex ta IIIC Da
Ex nR IIC Gc

Approved for issue on behalf of the IECEx
Certification Body:

A C Smith

Position:

Technical Operations Director

Signature:
(for printed version)

Date:

2019-10-10

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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





IECEX Certificate of Conformity

Certificate No.: **IECEX CML 19.0106X**

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Date of issue: 2019-10-10

Issue No: 0

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

Additional
manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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/CML/ExTR19.0133/00](#)

Quality Assessment Report:

[GB/CML/QAR19.0022/00](#)



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Certificate No.: **IECEx CML 19.0106X**

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Date of issue: 2019-10-10

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The type CR-***, CR-D** and CR-O*** ranges of cable glands may be supplied in gland size 16 to 100 with entry thread sizes M20 to M100 or with the equivalent size NPT, NPSM, BSPP, BSPT, PG or ET entry thread forms.

Refer to Certification Annex for full equipment description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. 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 -35°C to +90°C.
2. 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.
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.
4. If the CR-***, CR-D** and CR-O*** types of cable glands only grip the cable 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.
5. The CR-*** and CR-D** 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).
6. The CR-O*** 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.
7. 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 EN 60079-31:2014.
 - 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 EN 60079-31:2014.

Annex:

[Annex IECEx CML 19.0106X Issue 0_1.pdf](#)

Annexe to: IECEx CML 19.0106X Issue 0
Applicant: Peppers Cable Glands Limited
Apparatus: Type CR-***, CR-D** & CR-O*** Cable Glands



The type CR-***, CR-D** and CR-O*** ranges of cable glands may be supplied in gland size 16 to 100 with entry thread sizes M20 to M100 or with the equivalent size NPT, NPSM, BSPP, BSPT, PG or ET entry thread forms. They are intended for use with effectively filled and circular armoured, unarmoured, braided, tape or screened sheathed cables and comprise the following components: -

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

Additional assembly options are described by the following designation coding:

| | | | | | |
|--------------------------|--------|---|---|---|---|
| Type CR-*** Cable Glands | CR-*** | | | | |
| Gland Type: | | | | | |
| Available Part No's.: | C | R | * | * | * |
| | | | 1 | B | R |
| | | | 2 | S | |
| | | | 3 | | |
| | | | 4 | | |
| Options: | 1 | Neoprene Seals | | | |
| | 2 | Neoprene Seals with Lead Sheath Cable Continuity Washer | | | |
| | 3 | Silicone Seals | | | |
| | 4 | Silicone Seals with Lead Sheath Cable Continuity Washer | | | |
| | B | Brass material | | | |
| | S | 316 Stainless Steel material | | | |
| | R | Reduced Bore option | | | |

Type CR-*** Cable Glands:

Unit 1, Newport Business Park
 New Port Road
 Ellesmere Port
 CH65 4LZ

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E info@cmllex.com

www.cmllex.com

Company Reg No. 8554022 VAT No. GB163023642





| Gland Size | Standard Entry threads | | Inner Sheath | | Outer Sheath | | Reduced Bore | | Armour Dia./Thickness | |
|------------|------------------------|------|--------------|-------|--------------|-------|--------------|------|-----------------------|------|
| | Metric | NPT | Min | Max | Min | Max | Min | Max | Min | Max |
| 16 | M20 | ½" | 3.4 | 8.4 | 8.4 | 13.5 | 6.7 | 10.3 | 0.15 | 1.25 |
| 16H | M20 | ½" | 3.4 | 8.4 | 11.5 | 16.0 | 9.4 | 12.5 | 0.15 | 1.25 |
| 20S | M20 | ½" | 7.2 | 11.7 | 11.5 | 16.0 | 9.4 | 12.5 | 0.15 | 1.25 |
| 20 | M20 | ½" | 9.4 | 14.0 | 15.5 | 21.1 | 12.0 | 17.6 | 0.15 | 1.25 |
| 25 | M25 | ¾" | 13.5 | 20.0 | 20.3 | 27.4 | 16.8 | 23.9 | 0.15 | 1.6 |
| 32 | M32 | 1" | 19.5 | 26.3 | 26.7 | 34.0 | 23.2 | 30.5 | 0.15 | 2.0 |
| 40 | M40 | 1 ¼" | 23.0 | 32.2 | 33.0 | 40.6 | 28.6 | 36.2 | 0.2 | 2.0 |
| 50S | M50 | 1 ½" | 28.1 | 38.2 | 39.4 | 46.7 | 34.8 | 42.4 | 0.2 | 2.5 |
| 50H | M50 | 1 ½" | 28.1 | 38.2 | 45.7 | 53.2 | 41.1 | 48.5 | 0.2 | 2.5 |
| 50 | M50 | 2" | 33.1 | 44.1 | 45.7 | 53.2 | 41.1 | 48.5 | 0.3 | 2.5 |
| 63S | M63 | 2" | 39.2 | 50.1 | 52.1 | 59.5 | 47.5 | 54.8 | 0.3 | 2.5 |
| 63H | M63 | 2" | 39.2 | 50.1 | 58.4 | 65.8 | 53.8 | 61.2 | 0.3 | 2.5 |
| 63 | M63 | 2 ½" | 46.7 | 56.0 | 58.4 | 65.8 | 53.8 | 61.2 | 0.3 | 2.5 |
| 75S | M75 | 2 ½" | 52.1 | 62.0 | 64.8 | 72.2 | 60.2 | 68.0 | 0.3 | 2.5 |
| 75H | M75 | 2 ½" | 52.1 | 62.0 | 71.1 | 78.0 | 66.5 | 73.4 | 0.3 | 2.5 |
| 75 | M75 | 3" | 58.0 | 68.0 | 71.1 | 78.0 | 66.5 | 73.4 | 0.3 | 2.5 |
| 80 | M80 | 3" | 62.2 | 72.0 | 77.0 | 84.0 | 71.9 | 79.4 | 0.45 | 3.15 |
| 80H | M80 | 3" | 62.2 | 72.0 | 79.6 | 90.0 | 75.0 | 85.4 | 0.45 | 3.15 |
| 85 | M85 | 3" | 69.0 | 78.0 | 79.6 | 90.0 | 75.0 | 85.4 | 0.45 | 3.15 |
| 90 | M90 | 3 ½" | 74.0 | 84.0 | 88.0 | 96.0 | 82.0 | 91.4 | 0.45 | 3.15 |
| 90H | M90 | 3 ½" | 74.0 | 84.0 | 92.0 | 102.0 | 87.4 | 97.4 | 0.45 | 3.15 |
| 100 | M100 | 3 ½" | 82.0 | 90.0 | 92.0 | 102.0 | 87.4 | 97.4 | 0.45 | 3.15 |
| 110 | M110 | 4" | 92.0 | 102.0 | 104.0 | 117.0 | - | - | 0.45 | 3.15 |



Type CR-D** Cable Glands

The Type CR-D** 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 CR-D** 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).

Gland Type: CR-D**

Available Part No's.: C R D * *

1 B

2 S

3

4

Options:

1 Neoprene Seals

2 Neoprene Seals with Lead Sheath Cable Continuity Washer

3 Silicone Seals

4 Silicone Seals with Lead Sheath Cable Continuity Washer

B Brass material

S 316 Stainless Steel material

Type CR-D** Type Cable Glands:

| Gland Size | Standard Entry threads | | Inner Sheath | | Outer Sheath | Armour Dia./Thickness | |
|------------|------------------------|------|--------------|------|--------------|-----------------------|---|
| | Metric | NPT | Min | Max | | Max | Steel wire & Tape (Universal) or Braid/Screen |
| | | | | | | Min | Max |
| 16 | M20 | ½" | 3.4 | 8.4 | 16.0 | 0.15 | 1.25 |
| 20S | M20 | ½" | 7.2 | 11.7 | 16.0 | 0.15 | 1.25 |
| 20 | M20 | ½" | 9.4 | 14.0 | 21.1 | 0.15 | 1.25 |
| 25 | M25 | ¾" | 13.5 | 20.0 | 27.5 | 0.15 | 1.6 |
| 32 | M32 | 1" | 19.5 | 26.3 | 34.0 | 0.15 | 2.0 |
| 40 | M40 | 1 ¼" | 23.0 | 32.2 | 40.6 | 0.2 | 2.0 |



| Gland Size | Standard Entry threads | | Inner Sheath | | Outer Sheath | Armour Dia./Thickness | |
|------------|------------------------|------|--------------|------|--------------|---|------|
| | | | | | | Steel wire & Tape (Universal) or Braid/Screen | |
| | Metric | NPT | Min | Max | Max | Min | Max |
| 50S | M50 | 1 ½" | 28.1 | 38.2 | 53.2 | 0.2 | 2.5 |
| 50 | M50 | 2" | 33.1 | 44.1 | 53.2 | 0.3 | 2.5 |
| 63S | M63 | 2" | 39.2 | 50.1 | 65.8 | 0.3 | 2.5 |
| 63 | M63 | 2 ½" | 46.7 | 56.0 | 65.8 | 0.3 | 2.5 |
| 75S | M75 | 2 ½" | 52.1 | 62.0 | 78.0 | 0.3 | 2.5 |
| 75 | M75 | 3" | 58.0 | 68.0 | 78.0 | 0.3 | 2.5 |
| 80 | M80 | 3" | 62.2 | 72.0 | 90.0 | 0.45 | 3.15 |
| 85 | M85 | 3" | 69.0 | 78.0 | 90.0 | 0.45 | 3.15 |
| 90 | M90 | 3 ½" | 74.0 | 84.0 | 102.0 | 0.45 | 3.15 |
| 100 | M100 | 3 ½" | 82.0 | 90.0 | 102.0 | 0.45 | 3.15 |

The Type CR-D** Cable Glands are formed by removing the outer cap, outer seal and outer skid washer from the CR-*** gland and fitting an alternative middle cap component. They are available in the same size, entry thread options and materials as the CR-*** cable gland.

Type CR-O*** Cable Glands

The Type CR-O*** 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 CR-O*** 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).

Gland Type: CR-O***

Available Part No's.: C R O * * *

1 B R
3 S

Options: 1 Neoprene Seals
3 Silicone Seals



- B Brass material
- S 316 Stainless Steel material
- R Reduced Bore Option

Type CR-O*** Cable Glands

| Gland Size | Standard Entry threads | | Inner Sheath Max | Outer Sheath | | Reduced Bore | | Armour Dia./Thickness | |
|------------|------------------------|------|------------------|--------------|------|--------------|------|-----------------------|------|
| | Metric | NPT | | Min | Max | Min | Max | Min | Max |
| 16 | M20 | ½" | 11.7 | 8.4 | 13.5 | 6.7 | 10.3 | 0.15 | 1.25 |
| 20S | M20 | ½" | 11.7 | 11.5 | 16.0 | 9.4 | 12.5 | 0.15 | 1.25 |
| 20 | M20 | ½" | 14.0 | 15.5 | 21.1 | 12.0 | 17.6 | 0.15 | 1.25 |
| 25 | M25 | ¾" | 20.0 | 20.3 | 27.4 | 16.8 | 23.9 | 0.15 | 1.6 |
| 32 | M32 | 1" | 26.3 | 26.7 | 34.0 | 23.2 | 30.5 | 0.15 | 2.0 |
| 40 | M40 | 1 ¼" | 32.2 | 33.0 | 40.6 | 28.6 | 36.2 | 0.2 | 2.0 |
| 50S | M50 | 1 ½" | 38.2 | 39.4 | 46.7 | 34.8 | 42.4 | 0.2 | 2.5 |
| 50H | M50 | 1 ½" | 44.1 | 39.4 | 46.7 | 34.8 | 42.4 | 0.3 | 2.5 |
| 50 | M50 | 2" | 44.1 | 45.7 | 53.2 | 41.1 | 48.5 | 0.3 | 2.5 |
| 63S | M63 | 2" | 50.1 | 52.1 | 59.5 | 47.5 | 54.8 | 0.3 | 2.5 |
| 63H | M63 | 2" | 56.0 | 52.1 | 59.5 | 47.5 | 54.8 | 0.3 | 2.5 |
| 63 | M63 | 2 ½" | 56.0 | 58.4 | 65.8 | 53.8 | 61.2 | 0.3 | 2.5 |
| 75S | M75 | 2 ½" | 62.0 | 64.8 | 72.2 | 60.2 | 68.0 | 0.3 | 2.5 |
| 75H | M75 | 2 ½" | 68.0 | 64.8 | 72.2 | 60.2 | 68.0 | 0.3 | 2.5 |
| 75 | M75 | 3" | 68.0 | 71.1 | 78.0 | 66.5 | 73.4 | 0.3 | 2.5 |
| 80 | M80 | 3" | 72.0 | 77.0 | 84.0 | 71.9 | 79.4 | 0.45 | 3.15 |
| 80H | M80 | 3" | 78.0 | 79.6 | 90.0 | 75.0 | 85.4 | 0.45 | 3.15 |
| 85 | M85 | 3" | 78.0 | 79.6 | 90.0 | 75.0 | 85.4 | 0.45 | 3.15 |
| 90 | M90 | 3 ½" | 84.0 | 88.0 | 96.0 | 82.0 | 91.4 | 0.45 | 3.15 |
| 90H | M90 | 3 ½" | 90.0 | 88.0 | 96.0 | 82.0 | 91.4 | 0.45 | 3.15 |



| Gland Size | Standard Entry threads | | Inner Sheath Max | Outer Sheath | | Reduced Bore | | Armour Dia./Thickness | |
|------------|------------------------|------|------------------|--------------|-------|--------------|------|---|------|
| | Metric | NPT | | Min | Max | Min | Max | Steel wire & Tape (Universal) or Braid/Screen | |
| | | | | | | | | Min | Max |
| 100 | M100 | 3 ½" | 90.0 | 92.0 | 102.0 | 87.4 | 97.4 | 0.45 | 3.15 |
| 110 | M110 | 4" | 102.0 | 104.0 | 117.0 | - | - | 0.45 | 3.15 |

Notes:

BAS01ATEX2271X, Sira 09ATEX1221X and IECEx SIR 07.0099X are superseded by certificates CML 19ATEX1348X, CML 19ATEX4109X and IECEx CML 19.0106X.

The product covered by Issue 0 of this certificate remains identical to that previously covered by BAS01ATEX2271X, Sira 09ATEX1221X and IECEx SIR 07.0099X.

Where BAS01ATEX2271X and/or Sira 09ATEX1221X and/or IECEx SIR 07.0099X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.