



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 19.0107X** 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: **UL-C, UL-U and UL-X Range of Barrier Cable Glands**

Optional accessory:

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

Marking: Ex db I Mb
Ex eb I Mb
Ex db IIC Gb
Ex eb IIC Gb
Ex nR IIC Gc
Ex ta IIIC Da
-60°C to 135°C

Approved for issue on behalf of the IECEx
Certification Body:

A C Smith

Position:

Technical Operations Director

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

Eurofins E&E CML Limited
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United Kingdom





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

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 19.0107X**

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The UL-* Range of Barrier Cable Glands are metallic and are intended for use with armoured, unarmoured, braided, tape or screened cables. They allow the entry of the cable or conductors into enclosures without compromising the explosion protection provided by the enclosure, in accordance with relevant codes of practice.

The UL-* Range of Barrier Cable Glands, when installed with or without a sealing ring in threaded holes and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66. The UL-* Range of Barrier Cable Glands fitted with sealing rings, when installed in threaded holes or clearance holes with a lock nut and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP66 and IP68 to 100 metres for 7 days.

Refer to Certification Annex for full equipment description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.
2. The Ingress Protection rating that is required to ensure compliance with the standards used in this certificate was determined by testing the devices fitted into 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 user's responsibility to ensure that the appropriate Ingress Protection level is maintained at these interfaces.
3. The parallel threaded entry component threads will be suitably sealed using a method that is applicable to the associated equipment to which the gland will be attached. This will be in accordance with the relevant installation code of practice and will ensure that any ingress protection and restricted breathing sealing requirements are maintained.
4. 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 accordance with clause 5.1.2 of EN 60079-31:2014.
5. UL-U, UL-X, UL-C series of cable glands are manufactured with a cylindrical flameproof joint between the entry body and the front ferrule. This joint is not intended for repair.

Annex:

[Annex IECEx CML 19.0107X Issue 0_1.pdf](#)

Annexe to: IECEx CML 19.0107X Issue 0
Applicant: Peppers Cable Glands Limited
Apparatus: UL-C, UL-U and UL-X Range of Barrier Cable Glands



The **UL-* Range of Barrier Cable Glands** are metallic and are intended for use with armoured, unarmoured, braided, tape or screened cables. They allow the entry of the cable or conductors into enclosures without compromising the explosion protection provided by the enclosure, in accordance with relevant codes of practice.

The UL-* Range of Barrier Cable Glands, when installed with or without a sealing ring in threaded holes and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66. The UL-* Range of Barrier Cable Glands fitted with sealing rings, when installed in threaded holes or clearance holes with a lock nut and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP66 and IP68 to 100 metres for 7 days.

The UL-* range comprises:

-) UL-U cable glands comprising a range of sizes between 16 and 75.
-) UL-X cable glands comprising a range of sizes between 20s and 75.
-) UL-C cable glands comprising a range of sizes between 16 and 75.

Each size has a specified cable diameter range.

UL-U* Range of Barrier Cable Glands

The UL-U* Range of Barrier Cable Glands are suitable for use with circular, unarmoured, braided or screened cables; they comprise from front (enclosure side) to rear (incoming cable side):

Sizes 16, 20S and 20

-) Entry body to tighten into an associated enclosure which is fitted with an optional sealing ring. The front and rear having male threads.
-) Front ferrule that fits into the entry body. The ferrule body is one part of a two-part chamber where a two-part "PEPPERS T-1000 COMPOUND" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
-) O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule.
-) Rear ferrule, second part of a two-part compound chamber, unthreaded flamepath between the entry body and front ferrule.
-) Middle cap that has female thread at the front and secures ferrules in place within the entry body; the rear of the middle cap has a male thread to accept the back nut.
-) Elastomeric, cable outer sheath seal, fitted within the middle cap
-) Stainless steel skid washer fitted to back of outer sheath seal.
-) Back nut with male thread that screws into the seal housing to compress the outer sheath seal.

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Sizes 25 and above

-) Entry body to tighten into an associated enclosure which is fitted with an optional sealing ring. The front and rear have male threads.
-) Front ferrule that fits into the entry body, the ferrule body is one part of a two-part chamber where a two-part "PEPPERS T-1000 COMPOUND" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
-) O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule.
-) Rear ferrule, second part of a two-part compound chamber, unthreaded at front female thread to accept seal housing at rear.
-) Union nut that secures ferrules together within the rear of the entry body.
-) Seal housing has male thread at front which is screwed and secured with adhesive into the rear ferrule. Rear of seal housing contains outer sheath seal and skid washer.
-) Elastomeric, cable outer sheath seal, fitted within the seal housing.
-) Stainless steel skid washer fitted to back of outer sheath seal.
-) Back nut with male thread that screws into the seal housing to compress the outer sheath seal.

The following table details the available thread sizes, maximum number of cores that the gland can accept and the range of acceptable cable sizes for the UL-U range.

Gland Size	Standard Entry threads		Standard Alternative Entry threads		Max. number of cores	Max. Ø over cores mm	Outer sheath size mm	
	Metric	NPT	Metric	NPT			Min	Max
16	M20	½"	M25	¾"	15	10.4	3.4	8.4
20S	M20	½"	M25	¾"	35	10.4	4.8	11.7
20	M20	½"	M25	¾"	40	12.5	9.5	14.0
25	M25	¾"	M32	1"	60	17.8	11.7	20.0
32	M32	1"	M40	1 ¼"	80	23.5	18.1	26.3
40	M40	1 ¼"	M50	1 ½"	130	28.8	22.6	32.2
50S	M50	2"	M63	-	200	34.9	28.2	38.2
50	M50	2"	M63	-	400	39.4	33.1	44.1
63S	M63	2 ½"	M75	-	400	44.8	39.3	50.1
63	M63	2 ½"	M75	-	425	50.0	46.7	56.0
75S	M75	3"	-	-	425	55.4	52.3	62.0

Gland Size	Standard Entry threads		Standard Alternative Entry threads		Max. number of cores	Max. Ø over cores mm	Outer sheath size mm	
	Metric	NPT	Metric	NPT			Min	Max
75	M75	3"	-	-	425	60.8	58.0	68.0

UL-X* Range of Barrier Cable Glands

The UL-X* Range of Barrier Cable Glands are suitable for use with, unarmoured, braided and screened, circular and non-circular 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:

Sizes 20S and 20

-) Entry body to tighten into an associated enclosure which is fitted with an optional sealing ring. The front and rear having male threads.
-) Front ferrule that fits into the entry body, the ferrule body is one part of a two-part chamber where a two-part "PEPPERS T-1000 COMPOUND" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
-) O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule
-) Rear ferrule, second part of a two-part compound chamber, unthreaded flamepath between the entry body and front ferrule.
-) Union nut that secures front and rear ferrules together with the rear of the entry body.

Sizes 25 and above

-) Entry body to tighten into an associated enclosure which is fitted with an optional sealing ring. The front and rear having male threads.
-) Front ferrule that fits into the entry body, the ferrule body is one part of a two-part chamber where a two-part "PEPPERS T-1000 COMPOUND" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
-) O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule.
-) Rear ferrule, second part of a two-part compound chamber, unthreaded at front female thread to accept seal housing at rear.
-) Union nut that secures ferrules together within the rear of the entry body.
-) Union retaining cap, male thread which is screwed and secured with adhesive into rear ferrule thread.

The following table details the available thread sizes, maximum number of cores that the gland can accept and the range of acceptable cable sizes.

Type UL-X* Marine Shipboard Cable Glands

Gland Size	Standard Entry threads		Standard Alternative Entry threads		Max. number of cores	Max. Ø over cores mm	Max Outer sheath Size mm
	Metric	NPT	Metric	NPT			
20S	M20	½"	M25	¾"	35	10.4	11.7
20	M20	½"	M25	¾"	40	12.5	14.0
25	M25	¾"	M32	1"	60	17.8	20.0
32	M32	1"	M40	1 ¼"	80	23.5	26.3
40	M40	1 ¼"	M50	1 ½"	130	28.8	32.2
50	M50	2"	M63	-	400	39.4	44.1
63	M63	2 ½"	M75	-	425	50.0	56.0
75	M75	3"	-	-	425	60.8	68.0

UL-C* Range of Barrier Cable Glands

The UL-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 un-armoured cables; they comprise:

-) Entry body to tighten into an associated enclosure which is fitted with an optional sealing ring. The front and rear having male threads.
-) Front ferrule that fits into the entry body, the ferrule body is one part of a two-part chamber where a two-part "PEPPERS T-1000 COMPOUND" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
-) O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule
-) Rear ferrule/ cone, second part of a two-part compound chamber at front and cone for clamping cable armour at rear.
-) Clamp ring that secures cable armour to the cone and also provides earth protection
-) Middle cap that has female thread at the front and secures ferrules in place within the entry body; the rear of the middle cap has a male thread to accept the outer cap
-) Elastomeric, cable outer sheath seal, fitted into outer cap
-) Nylon 66 skid washer, fitted into outer cap
-) Outer cap, female thread, containing cable outer sheath seal and skid washer; outer cap is screwed on to the middle cap to compress the outer sheath seal

Gland Size	Standard Entry thread		Standard Alternative Entry threads		Max. No of cores	Max. Ø over cores mm	Max Inner Sheath mm	Outer sheath size mm				Armour Dia./ Thickness Universal mm
	Metric	NPT	Metric	NPT				Standard		Reduced Bore		
								Min	Max	Min	Max	
M16	M20	½"	M25	¾"	15	10.4	11.7	9.2	13.5	6.7	10.3	0.15 - 1.25
M20S	M20	½"	M25	¾"	35	10.4	11.7	11.5	16	9.4	12.5	0.15 - 1.25
M20	M20	½"	M25	¾"	40	12.5	14.0	15.5	21.1	14.3	17.6	0.15 - 1.25
M25	M25	¾"	M32	1"	60	17.8	20.0	20.3	27.4	17.5	23.9	0.15 - 1.6
M32	M32	1"	M40	1 ¼"	80	23.5	26.3	26.7	34.0	25.0	30.5	0.15 - 2.0
M40	M40	1 ¼"	M50	1 ½"	130	28.8	32.2	33.0	40.6	29.3	36.2	0.20 - 2.0
M50S	M50	2"	M63	-	200	34.9	38.2	39.4	46.7	38.1	42.4	0.20 - 2.5
M50	M50	2"	M63	-	400	39.4	44.1	45.7	53.2	41.1	48.5	0.20 - 2.5
M63S	M63	2 ½"	M75	-	400	44.8	50.1	52.1	59.5	46.9	54.8	0.30 - 2.5
M63	M63	2 ½"	M75	-	425	50.0	56.0	58.4	65.8	53.8	61.2	0.30 - 2.5
M75S	M75	3"	-	-	425	55.4	62.0	64.8	72.2	62.7	68.0	0.30 - 2.5
M75	M75	3"	-	-	425	60.8	68.0	71.1	78.0	66.5	73.4	0.30 - 2.5

Alternative metallic materials of manufacture:

The UL-* Range of Barrier Cable Glands may be manufactured from the following materials:

-) Brass grade CW614 (CuZn 39Pb3)/ CZ121 3Pb
-) Stainless Steel 1.4401/ 316 S31
-) Stainless Steel 1.4404/ 316 S11/316L

Additionally, all metallic materials may be surface coated to limit electrolytic reaction between dissimilar materials, as long as they do not dimensionally alter the components.

Product Type Ref:

The product type is derived from the following options:

UL-abc-ddd-eee

- | | |
|---|--|
| a | Product Type |
| | X = For use with unarmoured cable, no outer seal |
| | U = For use with unarmoured cable and fitted with elastomeric outer seal |
| | C = For use with cables utilising SWA armour, braid, tape or screen and fitted with elastomeric outer seal |
| b | Material of manufacture |
| | B = Brass |
| | S = Stainless steel |
| c | Bore (UL-C only) |
| | Blank = Standard bore |
| | R = Reduced bore |
| d | Gland size |
| | 16, 20S, 20, 25, 32, 40, 50S, 50, 63S, 63, 75S, 75 |
| e | Thread type and size |
| | Mxx, x" NPT |

Notes:

Sira 09ATEX1066X, Sira 09ATEX4124X and IECEx SIR 09.0033X are superseded by certificates CML 19ATEX1349X, CML 19ATEX4114X and IECEx CML 19.0107X .

The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 09ATEX1066X, Sira 09ATEX4124X and IECEx SIR 09.0033X.

Where Sira 09ATEX1066X and/or Sira 09ATEX4124X and/or IECEx SIR 09.0033X 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.