



EU Type Examination Certificate CML 19ATEX1349X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **UL-C, UL-U and UL-X Range of Barrier Cable Glands**
- 3 Manufacturer **Peppers Cable Glands Limited**
- 4 Address **Stanhope Road,
Camberley, Surrey,
GU15 3BT
United Kingdom**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V. , Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 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 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

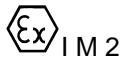
EN IEC 60079-0:2018

EN IEC 60079-7:2015/A1:2018

EN 60079-1:2014

EN 60079-31:2014

- 10 The equipment shall be marked with the following:

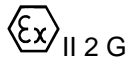


I M 2

Ex db I Mb

Ex eb I Mb

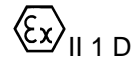
-60°C to 135°C



II 2 G

Ex db IIC Gb

Ex eb IIC Gb



II 1 D

Ex ta IIIC Da

-60°C to 135°C



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11 Description

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 parts 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.

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.



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-) 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
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



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-) 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



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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



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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



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- 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.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	08 Oct 2019	R12627A/00	The issue of prime certificates.

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of manufacture

None.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 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.
- 14.2 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



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is the user's responsibility to ensure that the appropriate Ingress Protection level is maintained at these interfaces.

- 14.3 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.
- 14.4 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
- 14.5 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.



Certificate Annex

Certificate Number CML 19ATEX1349X
Equipment UL-C, UL-U and UL-X Range of Barrier Cable Glands
Manufacturer Peppers Cable Glands Limited

The following documents describe the equipment or component defined in this certificate:

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Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/ULC	1 of 1	5	10 Oct 19	Barrier Gland Range for Armoured & Marine Shipboard Cable UL- C** Family
PCG/ATX/ULU	1 of 1	5	10 Oct 19	Barrier Gland Range for unarmoured Marine Shipboard Cable UL-U* and UL-X* Families
PCG/ATX/2M	1 of 1	11	10 Oct 19	ATEX Component Seal – Parts 2MI, 2MIS, 2MO, 2MOS, 2MOZS
PCG/ATX/5UL	1 of 1	2	10 Oct 19	Middle Cap for UL-C-Part 5UL
PCG/ATX/5V	1 of 1	8	10 Oct 19	ATEX Component Middle Cap-Part 5V
PCG/ATX/6M	1 of 1	6	10 Oct 19	ATEX Component Cap-Part 6M
PCG/ATX/10V	1 of 1	4	10 Oct 19	ATEX Component Armour Clamp Ring-Part 10V
PCG/ATX/11M	1 of 1	4	10 Oct 19	ATEX component Skid Washer-Parts 11MI, 11MO
PCG/ATX/31UL	1 of 1	2	10 Oct 19	Entry Body (all types)-Part 31UL
PCG/ATX/32UL	1 of 1	1	10 Oct 19	Front Ferrule (all types)-Part 32UL
PCG/ATX/33UL	1 of 1	2	10 Oct 19	Cone for UL-C-Part 33UL
PCG/ATX/34UL	1 of 1	2	10 Oct 19	Rear Ferrule for UL-X and UL-U-Part 34UL
PCG/ATX/35UL	1 of 1	2	10 Oct 19	Middle Cap for UL-U-Part 35UL
PCG/ATX/36UL	1 of 1	3	10 Oct 19	Union Nut for UL-X and UL-U-Part 36UL
PCG/ATX/36V	1 of 1	5	10 Oct 19	ATEX Component Union Nut Part 36V
PCG/ATX/38UL	1 of 1	2	10 Oct 19	Union Retaining Cap for UL-U-Part 38UL
PCG/ATX/39UL	1 of 1	2	10 Oct 19	Seal Housing for UL-U-Part 39UL
PCG/ATX/82N	1 of 1	8	10 Oct 19	ATEX Component Seals-Parts 82N & 82NS
PCG/ATX/82V	1 of 1	7	10 Oct 19	ATEX Component Seal-Parts 82V, 82VS
PCG/ATX/88N	1 of 1	9	10 Oct 19	ATEX Component Nut-Part 88N
PCG/ATX/91A	1 of 1	4	10 Oct 19	ATEX Component Skid Washer – Parts 91AS, 91AB, 91ABT



Certificate Annex

Certificate Number CML 19ATEX1349X
Equipment UL-C, UL-U and UL-X Range of Barrier Cable Glands
Manufacturer Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/91V	1 of 1	6	10 Oct 19	ATEX Component Skid Washer- parts 91V, 91VB, 91VBT
PCG/ATX/PEXMP	1 of 1	4	10 Oct 19	Marking Plan
PCG/ETDUL	1 of 1	4	10 Oct 19	Entry Thread And Hexagon Size Options For Component PCG/31UL
PCG/ETOR	1 of 1	12	10 Oct 19	Entry Thread O-Ring Seal Part OR
PCG/ETRO	1 of 1	3	10 Oct 19	Entry Thread Components Run Out Specification
PCG/MATS/UL	1 of 1	2	10 Oct 19	Standard Materials for UL certified glands
PCG/OR	1 of 1	15	10 Oct 19	Internal O-ring seal
PCG/ORGD	1 of 1	7	10 Oct 19	Component Entry Body O-ring Groove Detail
PCG/MATS/SB	1 of 1	5	10 Oct 19	Standard Materials ATEX Certified Glands Using "M", "V" and "N" Components