

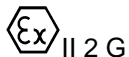


## EU Type Examination Certificate CML 19ATEX1348X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Type CR-\*\*\*, CR-D\*\* & CR-O\*\*\* 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:

CR-\*\*\* Type and CR-D\*\* Type

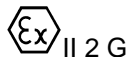


II 2 G

Ex db IIC Gb

Ex eb IIC Gb

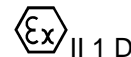
CR-O\*\*\* Type



II 2 G

Ex eb IIC Gb

All Types



II 1 D

Ex ta IIIC Da



CML 19ATEX1348X  
Issue 0

## 11 Description

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 compromise 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:

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



**CML 19ATEX1348X  
Issue 0**

Gland Size	Standard Entry threads		Inner Sheath		Outer Sheath		Reduced Bore		Armour Dia./Thickness	
	Metric	NPT	Min	Max	Min	Max	Min	Max	Min	Max
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\*\*



CML 19ATEX1348X  
Issue 0

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
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.



CML 19ATEX1348X  
Issue 0

### 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



**CML 19ATEX1348X  
Issue 0**

Gland Size	Standard Entry threads		Inner Sheath Max	Outer Sheath		Reduced Bore		Armour Dia./Thickness	
	Metric	NPT		Min	Max	Min	Max	Min	Max
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
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.

## 12 Certificate history and evaluation reports

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

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



CML 19ATEX1348X  
Issue 0

### 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 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.
- 14.2 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.
- 14.3 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.
- 14.4 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.
- 14.5 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).
- 14.6 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.
- 14.7 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.



## Certificate Annex

**Certificate Number** CML 19ATEX1348X  
**Equipment** Type CR-\*\*\*, CR-D\*\* & CR-O\*\*\* Cable Glands  
**Manufacturer** Peppers Cable Glands Limited

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

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/CR	1 to 2	10	10 Oct 19	ATEX Range gland – CR-*** for armoured/ unarmoured/braided/ screened cable
PCG/ATX/CRD	1 to 2	7	10 Oct 19	ATEX Range gland – CRD*** for armoured/ unarmoured/braided/ screened cable
PCG/ATX/CRO	1 to 2	5	10 Oct 19	ATEX Range gland – CRO*** for armoured cable
PCG/ATX/1V	1 of 1	12	10 Oct 19	ATEX Component Entry Body-Part 1V
PCG/ATX/1VOS	1 of 1	5	10 Oct 19	ATEX Component Entry Body-Part 1V/110
PCG/ATX/1VT	1 of 1	6	10 Oct 19	ATEX Component Entry Body-Part 1VT
PCG/ATX/2M	1 of 1	11	10 Oct 19	ATEX Component Seal – Parts 2MI, 2MIS, 2MO, 2MOS, 2MOZS
PCG/ATX/2MOS	1 of 1	1	10 Oct 19	ATEX Component Outer Seal-Part 2MO/110
PCG/ATX/3V	1 of 1	8	10 Oct 19	ATEX Component Cone-Part 3V
PCG/ATX/4V	1 of 1	5	10 Oct 19	ATEX Component Cap-Part 4V
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 Outer Cap-Part 6M
PCG/ATX/6MOS	1 of 1	2	10 Oct 19	ATEX Component Back Nut-Part 6M/110
PCG/ATX/8V	1 of 1	8	10 Oct 19	ATEX Component Compression Bush-Part 8V
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/82N	1 of 1	8	10 Oct 19	ATEX Component Seal- Parts 82N & 82NS
PCG/ATX/82NOS	1 of 1	1	10 Oct 19	ATEX Component Seal-Part 82NI/110
PCG/ATX/82V	1 of 1	7	10 Oct 19	ATEX Component Seal-Parts 82V, 82VS





## Certificate Annex

**Certificate Number** CML 19ATEX1348X  
**Equipment** Type CR-\*\*\*, CR-D\*\* & CR-O\*\*\* Cable Glands  
**Manufacturer** Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/91A	1 of 1	4	10 Oct 19	ATEX Component Skid Washer – Parts 91AS, 91AB, 91ABT
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/ETDMV	1 of 1	9	10 Oct 19	Standard Thread Chart
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/LW2	1 of 1	8	10 Oct 19	Continuity Washer LW2
PCG/MATS/SB	1 of 1	5	10 Oct 19	Standard Materials ATEX Certified Glands Using “M”, “V” and “N” Components
PCG/ORGD	1 of 1	7	10 Oct 19	Component Entry Body O-ring Groove Detail