




Type Examination Certificate **CML 19ATEX4109X Issue 2**

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Range of E****F* and D****F, CR-*** and CR-D**, A8** A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**, A*LC***, A*RC*** 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, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.

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 certification (affecting correct installation or safe use). These are specified in Section 14.
- 8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component.
- 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 60079-15:2010
- 10 The equipment shall be marked with the following:

 II 3 G

Ex nR IIC Gc



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11 Description

The E****F* and D****F, CR-*** and CR-D**, A8** A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**, A*LC***, A*RC*** Cable Glands are intended for use with effectively filled and circular armoured, unarmoured, braided, tape or screened sheathed cables. Each comprises a threaded entry body, elastomeric sealing ring, armour cone, clamp ring and compression cap. The entry body is available with an optional outer deluge seal or an integral earthing clamp. D****F glands have a single flameproof seal and the E****F* glands have a double seal arrangement of flameproof and outer IP seal with extra compression cap and skid washer to suit. Seals are available in silicone and neoprene. Each gland type is available with an optional integral earth clamp arrangement on the entry body.

Glands are available in the size range 16 to 100 with ISO metric entry threads of M16 to M100 respectively. Alternative thread forms and sizes ISO metric, NPT, NPSM, BSPT, BSPP, PG and ET are available.

Additional assembly options are described by the following designations:

E****F* / D****F Cable Glands

Gland Type:	E****F*							
Available Part No's.:	E	*	*	*	*	*	F	*
		1	U	CF	A	IE		R
		2	W	CM	B			
		3	X		S			
		4						
Options	1	Neoprene Seal						
	2	Neoprene Seal with Lead Sheath Cable Continuity Washer						
	3	Silicone Seal						
	4	Silicone Seal with Lead Sheath Cable Continuity Washer						
	U	Steel Wire Armour/Woven Steel Wire/Steel Tape/Braid						
	W	Steel Wire Armour						
	X	Woven Steel Wire/Steel Tape/Braid						
	CF	Female thread conduit connector						
	CM	Male thread conduit connector						
	A	Aluminium material						
	B	Brass material						
	S	316 Stainless Steel material						
	IE	Integral Earth						
	R	Reduced Bore						



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Gland Type:	D*****F						
Available Part No's.:	D	*	*	*	*	*	F
		1	U	CF	A	IE	
		2	W	CM	B		
		3	X		S		
		4					
Options	1	Neoprene Seal					
	2	Neoprene Seal with Lead Sheath Cable Continuity Washer					
	3	Silicone Seal					
	4	Silicone Seal with Lead Sheath Cable Continuity Washer					
	U	Steel Wire Armour/Woven Steel Wire/Steel Tape/Braid					
	W	Steel Wire Armour					
	X	Woven Steel Wire/Steel Tape/Braid					
	CF	Female thread conduit connector					
	CM	Male thread conduit connector					
	A	Aluminium material					
	B	Brass material					
	S	316 Stainless Steel material					
	IE	Integral Earth					

NOTES: - * Type 3 & 4 (silicone) seals on to 9.3mm diameter
 ** The D*****F gland has no outer sheath sealing, so Min range is not applicable.

Gland Size	Standard Entry threads		Inner Sheath		Outer Sheath		Reduced Bore		Armour Dia./Thickness			
	Metric	NPT	Min	Max	Min**	Max	Min	Max	W-Wire armour	X-Braid & Tape	U-Wire Armour	U-Braid & Tape
16	M16	3/8"	3.5	8.4	8.4	13.5	4.9	10.0	0.9	0.15 – 0.35	0.8 - 1.25	0.2 - 0.8
20S	M20	1/2"	8.0	11.7	11.5	16.0	9.4	12.5	0.9 – 1.25	0.15 – 0.35	0.8 - 1.25	0.2 - 0.8
20	M20	1/2"	6.7*	14.0	15.5	21.1	12.0	17.6	0.9 – 1.25	0.15 – 0.50	0.8 - 1.25	0.2 - 0.8
25	M25	3/4"	13.0	20.0	20.3	27.4	16.8	23.9	1.25 – 1.6	0.15 – 0.50	1.25 - 1.6	0.2 - 0.8
32	M32	1"	19.0	26.3	26.7	34.0	23.2	30.5	1.6 – 2.0	0.15 – 0.55	1.6 - 2.0	0.3 - 1.2
40	M40	1 1/4"	25.0	32.2	33.0	40.6	28.6	36.2	1.6 – 2.0	0.2 – 0.6	1.6 - 2.0	0.3 - 1.2
50S	M50	1 1/2"	31.5	38.2	39.4	46.7	34.8	42.4	2.0 – 2.5	0.2 – 0.6	2.0 - 2.5	0.3 - 1.6
50H	M50	1 1/2"	31.5	38.2	45.7	53.2	41.1	48.5	2.0 – 2.5	0.2 – 0.6	2.0 - 2.5	0.3 - 1.6
50	M50	2"	36.5	44.1	45.7	53.2	41.1	48.5	2.0 – 2.5	0.3 – 0.8	2.0 - 2.5	0.3 - 1.6
63S	M63	2"	42.5	50.1	52.1	59.5	47.5	54.8	2.5	0.3 – 0.8	2.0 - 2.5	0.3 - 1.6
63H	M63	2"	42.5	50.1	58.4	65.8	53.8	61.2	2.5	0.3 – 0.8	2.0 - 2.5	0.3 - 1.6



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NOTES: - * Type 3 & 4 (silicone) seals on to 9.3mm diameter
 ** The D****F gland has no outer sheath sealing, so Min range is not applicable.

Gland Size	Standard Entry threads		Inner Sheath		Outer Sheath		Reduced Bore		Armour Dia./Thickness			
	Metric	NPT	Min	Max	Min**	Max	Min	Max	W-Wire armour	X-Braid & Tape	U-Wire Armour	U-Braid & Tape
63	M63	2 ½"	49.5	56.0	58.4	65.8	53.8	61.2	2.5	0.3 – 0.8	2.0 - 2.5	0.3 - 1.6
75S	M75	2 ½"	54.5	62.0	64.8	72.2	60.2	68.0	2.5	0.3 – 1.0	2.0 - 2.5	0.5 - 1.6
75H	M75	2 ½"	54.5	62.0	71.1	78.0	66.5	73.4	2.5	0.3 – 1.0	2.0 - 2.5	0.5 - 1.6
75	M75	3"	60.5	68.0	71.1	78.0	66.5	73.4	2.5	0.3 – 1.0	2.0 - 2.5	0.5 - 1.6
80	M80	3"	62.2	72.0	77.0	84.0	71.9	79.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6
80H	M80	3"	62.2	72.0	79.6	90.0	75.0	85.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6
85	M85	3"	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6
90	M90	3 ½"	74.0	84.0	88.0	96.0	82.0	91.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6
90H	M90	3 ½"	74.0	84.0	92.0	102.0	87.4	97.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6
100	M100	3 ½"	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45 – 1.0	3.15 - 4.0	0.5 - 1.6

Design options:

1. Cable glands can be fitted with multi-clamping clamp ring for all armour types. These glands, indicated with option code "U", are not available in aluminium material.
2. When fitted with neoprene seals the service temperature range of the glands is: -35°C to +90°C. When fitted with silicone seals the service temperature range of the glands is: -60°C to +180°C.
3. All gland types with parallel threaded entry threads may have a modified thread length of a minimum of 10 mm and be marked suitable only for 'Ex eb' applications.
4. All gland types with parallel threaded entry threads to be manufactured with a longer than 'standard' thread length to suit the end use application.
5. All gland types can be manufactured with larger than the 'standard' entry threads as listed within the product description.
6. All gland types with parallel threaded entry threads may optionally be modified and fitted with an O-ring seal.
7. All cable glands may be fitted with alternative component on the rear back to allow connection of conduits.



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Type CR-* and CR-D** ranges of cable glands**

The type CR-*** and CR-D** 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:**

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



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



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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).

Type CR-D** Type Cable Glands:

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

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



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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
85	M85	3"	69.0	78.0	90.0	0.45	3.15
90	M90	3 1/2"	74.0	84.0	102.0	0.45	3.15
100	M100	3 1/2"	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.

A8, A8C***, A8RC**, D8X**, D8XC***, E8X** and E8XC*** Range of Cable Glands**

These cable glands are intended for use with flat profile cables.

The A8** may be used with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment).

The D8X** and E8X** have an additional clamp to grip copper braid and woven steel wire armour. The D8X** seals and grips the inner sheath and the E8X** seals and grips the inner and outer sheaths.

Construction materials are brass, mild steel or stainless steel. In all cases, the seal materials are silicone. Glands are available in the size range 20S, 20R and 20 with an M20 x 1.5 and M25 X 1.5 metric entry thread. Alternative equivalent size entry thread forms are available. The glands have an ingress protection rating of IP66 and IP68 (50 metres 7 days).

The A8C*** model series variant to the A8** series additionally provides, via an alternative cap component, male or female connection to solid rigid conduit or flexible metallic conduit The A8RC** model series variant to the A8** series additionally provides, via an alternative compression bush component, male connection to galvanised steel or stainless steel, unsheathed or protective sheathed, flexible metallic conduit.

The D8XC*** model series variant to the D8X** series additionally provide via an alternative cap component, male or female connection to solid rigid conduit or flexible metallic conduit.

The E8XC*** model series variant to the E8X** series additionally provide, via an alternative cap component, male or female connection to solid rigid conduit or flexible metallic conduit.



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Gland Type: A8**

Available Part No's.: A 8 * *

B F

S E

Options:

B Brass material

S 316 Stainless Steel material

F Dual certified d (flameproof) & e (increased safety)

E Certified e (increased safety) only

Gland Type: A8C***

Available Part No's.: A 8 C * *

F B F

M S E

Options:

F Female conduit connector

M Male conduit connector

B Brass material

S 316 Stainless Steel material

F Dual certified d (flameproof) & e (increased safety)

E Certified e (increased safety) only



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Type A8**/A8C*** Cable Glands

Gland Size	Standard Entry Threads		Outer Sheath Data			
	Metric	NPT	Min		Max	
			A	B	A	B
20S	M20	1/2"	6.3	4.0	11.7	7.0
20	M20	1/2"	10.3	5.6	13.5	9.0
20R	M20	1/2"	8.1	5.8	13.5	6.2
25	M25	3/4"	10.6	4.0	16.2	7.0

Gland Type: A8RC**

Available Part No's.: A 8 R C * *

B F

S E

Options:

- B Brass material
- S 316 Stainless Steel material
- F Dual certified d (flameproof) & e (increased safety)
- E Certified e (increased safety) only



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Type A8RC** Cable Glands:

Gland Size	Standard Entry Threads		Outer Sheath and Conduit Data					
	Metric	NPT	Cable Sheath Data				Conduit Data	
			Min		Max		Typical Conduit ID	Max Conduit OD
			A	B	A	B		
20S-1	M20	½"	6.3	4.0	11.2	7.0	13.0	17.1
20S-2	M20	½"	6.3	4.0	11.7	7.0	15.0	19.3
20S-3	M20	½"	6.3	4.0	11.7	7.0	16.9	21.5
20-1	M20	½"	10.3	5.6	11.2	9.0	13.0	17.1
20-2	M20	½"	10.3	5.6	13.5	9.0	15.0	19.3
20-3	M20	½"	10.3	5.6	13.5	9.0	16.9	21.5
20R-1	M20	½"	8.1	5.8	11.2	6.2	13.0	17.1
20R-2	M20	½"	8.1	5.8	13.5	6.2	15.0	19.3
20R-3	M20	½"	8.1	5.8	13.5	6.2	16.9	21.5
25-1	M25	¾"	10.6	4.0	16.2	7.0	16.9	23.8
25-2	M25	¾"	10.6	4.0	16.2	7.0	18.7	24.8
25-3	M25	¾"	10.6	4.0	16.2	7.0	21.1	26.8
25-4	M25	¾"	10.6	4.0	16.2	7.0	20.7	27.8

Gland Type: D8X**

Available Part No's.: D 8 X * *
B F
S E

Options:
B Brass material
S 316 Stainless Steel material
F Dual certified d (flameproof) & e (increased safety)
E Certified e (increased safety) only

Gland Type: D8XC***

Available Part No's.: D 8 X C * * *
F B F
M S E

Options:
F Female conduit connector
M Male conduit connector
B Brass material
S 316 Stainless Steel material
F Dual certified d (flameproof) & e (increased safety)
E Certified e (increased safety) only



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Type D8X**/D8XC*** Cable Glands:

Gland Size	Standard Entry Threads		Inner Sheath Range				Outer Sheath Range				Armour Wire Dia.	
			Min		Max		Min		Max			
	Metric	NPT	A	B	A	B	A	B	A	B	Min	Max
20S	M20	½"	6.3	4.0	11.7	7.0	7.9	4.5	11.7	7.0	0.1	0.3
20	M20	½"	10.3	5.6	13.5	9.0	11.0	4.5	13.5	9.0	0.1	0.3
20R	M20	½"	8.1	5.8	13.5	6.2	10.7	5.4	16.1	8.3	0.1	0.3

Note: A = width and B = thickness

Gland Type: E8X**

Available Part No's.: E 8 X * *
B F
S E

Options: B Brass material
S 316 Stainless Steel material
F Dual certified d (flameproof) & e (increased safety)
E Certified e (increased safety) only

Gland Type: E8XC***

Available Part No's.: E 8 X C * * *
F B F
M S E

Options: F Female conduit connector
M Male conduit connector
B Brass material
S 316 Stainless Steel material
F Dual certified d (flameproof) & e (increased safety)
E Certified e (increased safety) only



Type E8X**/E8XC*** Cable Glands:

Gland Size	Standard Entry Threads		Inner Sheath Range				Outer Sheath Range				Armour Wire Dia.	
			Min		Max		Min		Max			
	Metric	NPT	A	B	A	B	A	B	A	B	Min	Max
20S	M20	½"	6.3	4.0	11.7	7.0	7.9	4.5	11.7	7.0	0.1	0.3
20	M20	½"	10.3	5.6	13.5	9.0	11.0	4.5	13.5	9.0	0.1	0.3
20R	M20	½"	8.1	5.8	13.5	6.2	10.7	5.4	16.1	8.3	0.1	0.3

Note: A = width and B = thickness

Note:

The A8*F has now been split into design variants within A8** model number series.

The A8C**F has now been split into design variants within A8C*** model number series.

The A8RC** model number series has been introduced.

The D8X*F has now been split into design variants within the D8X** model number series.

The D8XC** model number series has been introduced.

The E8X*F has now been split into design variants within the E8X** model number series.

The E8XC*** model number series has been introduced

Type A**, A*L**, A*LC*** and A*RC*** Range of Cable Glands**

The type A****, A*L**, A*LC*** and A*RC*** range of cable glands is intended for use with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment). Construction materials are brass, mild steel, stainless steel or aluminium alloy. Glands are available in a single or double seal configuration and utilise a silicone or neoprene seal. The single seal configuration is available with a compression nut, which will accept either male or female conduit.

Glands are available in the size range 12 to 100 mm with ISO metric entry threads of M12 to M100 respectively. Alternative thread forms are available.

The cable gland range is as follows:

Gland Type:	A*L**			
Available Part No's.:	A	*	L	* * *
		1		B F
		2		S E
		3		A
		4		
Options:	1	Neoprene Seal with Lead Sheath Cable Continuity Washer		



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- 2 Neoprene Seal
- 3 Silicone Seal
- 4 Silicone Seal with Lead Sheath Cable Continuity Washer
- A Aluminium
- B Brass material
- S 316 Stainless Steel material
- F Ex d (flameproof) and Ex e (Increased Safety) approvals
- E Ex e (Increased Safety) approval only

Gland Type: A****

Available Part No's.:	A	*	*	*	*
		1	LDS	B	F
		2	RDC	S	E
		3	RDF	A	
		4	RDM		

- Options:
- 1 Neoprene Seal with Lead Sheath Cable Continuity Washer
 - 2 Neoprene Seal
 - 3 Silicone Seal
 - 4 Silicone Seal with Lead Sheath Cable Continuity Washer
 - LDS Fixed Double seal
 - RDC Double seal with Rotating flexible conduit connector
 - RDF Double seal with rotating female thread conduit nut
 - RDM Double seal with Rotating male thread conduit nut
 - A Aluminium
 - B Brass material
 - S 316 Stainless Steel material
 - F Ex d (flameproof) and Ex e (Increased Safety) approvals
 - E Ex e (Increased Safety) approval only



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Gland Type: A*LC***

Available Part No's.:	A	*	LC	*	*	*
		1		H	A	F
		2		F	B	E
		3		M	S	
		4				

Options:	1	Neoprene Seal with Lead Sheath Cable Continuity Washer
	2	Neoprene Seal
	3	Silicone Seal
	4	Silicone Seal with Lead Sheath Cable Continuity Washer
	H	Single seal with fixed hose connector
	F	Single seal with fixed female thread conduit connector
	M	Single seal with fixed male thread conduit connector
	A	Aluminium
	B	Brass material
	S	316 Stainless Steel material
	F	Ex d (flameproof) and Ex e (Increased Safety) approvals
	E	Ex e (Increased Safety) approval only



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Gland Type: A*RC***

Available Part No's.:	A	*	RC	*	*	*
		1		C	A	F
		2		F	B	E
		3		M	S	
		4				

Options:	1	Neoprene Seal with Lead Sheath Cable Continuity Washer
	2	Neoprene Seal
	3	Silicone Seal
	4	Silicone Seal with Lead Sheath Cable Continuity Washer
	C	Single seal with rotating flexible conduit connector
	F	Single seal with rotating female thread conduit connector
	M	Single seal with rotating-male thread conduit connector
	A	Aluminium
	B	Brass material
	S	316 Stainless Steel material
	F	Ex d (flameproof) and Ex e (Increased Safety) approvals
	E	Ex e (Increased Safety) approval only



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Type A*L**, A*LC**, A*LDS**, A*RCF**, A*RCM**, A*RDF** and A*RDM** Cable Glands:

Glands size	Standard Entry Threads		Outer Sheath	
	Metric	NPT	Min	Max
12	M12	¼"	0.9	6.0
16	M16	3/8"	4.0	8.4
20S	M20	½"	7.2	11.7
20	M20	½"	9.4	14.0
25	M25	¾"	13.5	20.0
32	M32	1"	19.5	26.3
40	M40	1 ¼"	23.0	32.2
50S	M50	1 ½"	28.1	38.2
50	M50	2"	33.1	44.1
63S	M60	2"	39.2	50.1
63	M60	2 ½"	46.7	56.0
75S	M75	2 ½"	52.1	62.0
75	M75	3"	58.0	68.0
80	M80	3"	62.2	72.0
85	M85	3"	69.0	78.0
90	M90	3 ½"	74.0	84.0
100	M100	3 ½"	82.0	90.0

Type A*RCC** and A*RDC** Cable Glands

Gland size	Standard Entry threads		Cable outer sheath		Conduit	
	Metric	NPT	Min	Max	I/D Min	O/D Max
12-1	M12	¼"	0.9	5.4	6.8	10.3
12-2	M12	¼"	0.9	6.0	10.2	14.1
12-3	M12	¼"	0.9	6.0	9.1	14.3
12-4	M12	¼"	0.9	6.0	10.9	15.8
12-5	M12	¼"	0.9	6.0	7.8	13.0
16-1	M16	3/8"	4.0	8.4	10.2	14.1
16-2	M16	3/8"	4.0	8.4	10.9	15.8
16-3	M16	3/8"	4.0	8.4	13.0	17.1
20S-1	M20	½"	7.2	11.0	13.0	17.1
20S-2	M20	½"	7.2	11.7	13.9	19.3
20S-3	M20	½"	7.2	11.7	14.6	20.7
20-1	M20	½"	9.4	14.0	16.9	22.3
20-2	M20	½"	9.4	14.0	16.9	23.8
20-3	M20	½"	9.4	14.0	18.7	24.8
20-4	M20	½"	9.4	14.0	20.7	28.3



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Gland size	Standard Entry threads		Cable outer sheath		Conduit	
	Metric	NPT	Min	Max	I/D Min	O/D Max
20-5	M20	1/2"	9.4	14.0	13.9	19.3
25-1	M25	3/4"	13.5	20.0	23.7	31.3
25-2	M25	3/4"	13.5	19.0	21.1	26.8
25-3	M25	3/4"	13.5	19.0	25.0	31.3
25-4	M25	3/4"	13.5	20.0	20.7	28.3
32-1	M32	1"	19.5	26.0	28.1	33.3
32-2	M32	1"	19.5	26.3	30.4	40.8
32-3	M32	1"	19.5	26.3	30.4	38.8
40-1	M40	1 1/4"	23.0	32.2	36.4	46.8
40-2	M40	1 1/4"	23.0	32.2	36.4	44.8
40-3	M40	1 1/4"	23.0	32.2	37.6	45.3
50S-1	M50	1 1/2"	28.1	38.2	48.4	55.8
50-1	M50	2"	33.1	44.1	48.4	55.8
63S-1	M63	2"	39.2	50.1	57.5	64.8
63-1	M63	2 1/2"	46.7	53.6	57.5	64.8

Notes:

Sira 01ATEX1271X, Sira 09ATEX1221X and IECEx SIR 07.0097X are superseded by certificates CML 19ATEX1106X, CML 19ATEX4109X and IECEx CML 19.0031X.

The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 01ATEX1271X, Sira 09ATEX1221X and IECEx 07.0097X.

Where Sira 01ATEX1271X and/or Sira 09ATEX1221X and/or IECEx SIR 07.0097X 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.

Sira 01ATEX1272X, Sira 09ATEX1221X and IECEx SIR 07.0096X are superseded by certificates CML 19ATEX1345X, CML 19ATEX4109X and IECEx CML 19.0103X.

The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 01ATEX1272X, Sira 09ATEX1221X and IECEx SIR 07.0096X.

Where Sira 01ATEX1272X and/or Sira 09ATEX1221X and/or IECEx SIR 07.0096X 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.

Sira 01ATEX1270X, Sira 09ATEX1221X and IECEx SIR 05.0020X are superseded by certificates CML 19ATEX1346X, CML 19ATEX4109X and IECEx CML 19.0104X.



**CML 19ATEX4109X
Issue 2**

The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 01ATEX1270X, Sira 09ATEX1221X and IECEx SIR 05.0020X.

Where Sira 01ATEX1270X and/or Sira 09ATEX1221X and/or IECEx SIR 05.0020X 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.

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.

Variation 1

This variation introduces the following modifications:

- i. To update the scope of the certificate to include the CR-*** and CR-D**, A8** A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**, A*LC***, A*RC*** Cable Glands.

Variation 2

This variation introduces the following modifications:

- i. To include Male and Female thread options to allow for connection of flexible or rigid conduit onto the rear end of the cable glands.
- ii. To change the cable gland name designation from E****F*, D****F and C****E* cable glands to E****F*, D****F and C****E* Cable Glands.

12 Certificate history and evaluation Reports

Issue	Date	Associated report	Notes
0	17 Apr 2019	R12330A/00	Issue of Prime Certificate
1	10 Oct 2019	R12627A/00	Introduction of Variation 1
2	10 Jan 2020	R12937/00	Introduction of Variation 2

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

13 Conditions of manufacture

None.



CML 19ATEX4109X
Issue 2

14 Specific Conditions of Use (Special Conditions)

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

- i. The Ranges of Cable Glands shall not be used in enclosures where the temperature, at the point of contact exceeds the following temperatures.
 - a) -35°C to +90°C for neoprene seal variants (not applicable to A8** A8C*** A8RC** D8X** D8XC*** E8X** E8XC*** Cable Glands).
 - b) -60°C to 180°C for the silicone seal variants.
- ii. The ranges 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 and IP68 (50 meters 7 days).
- iii. 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
- iv. If the E****F*, D****F, CR-*** and CR-D** type cable glands only grip the cable sheath and do not clamp the 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.
- v. The A8**, A8C***, A8RC**, D8X**, D8XC***, E8X**, E8XC***, A****, A*L**, A*LC*** and A*RC*** cable glands shall only be used for fixed installations, in addition, the cables must be effectively clamped to prevent pulling or twisting

Certificate Annex



Certificate Number CML 19ATEX4109X
Equipment Range of E****F* and D****F, CR-*** and CR-D**, A8**
A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L **,
A*LC***, A*RC*** 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/1M	1 of 1	5	17 Apr 2019	ATEX component entry body parts 1M, 1M9
PCG/ATX/1MIE	1 of 1	8	17 Apr 2019	ATEX component entry body – Integral earth part 1MIE
PCG/ATX/1MT	1 of 1	5	17 Apr 2019	ATEX component entry body – NPT/BSPT threads parts 1MT, 1MT9
PCG/ATX/2M	1 of 1	10	17 Apr 2019	ATEX component seal – Parts 2MI, 2MIS 2MO, 2MOS, 2MOZS
PCG/ATX/2MT	1 of 1	1	17 Apr 2019	ATEX component seal – Deluge Part 2MTRI
PCG/ATX/3M	1 of 1	7	17 Apr 2019	ATEX component Cone – Parts 3M, 3MX
PCG/ATX/3MU	1 of 1	1	17 Apr 2019	ATEX component Cone – Universal Clamping
PCG/ATX/4M	1 of 1	4	17 Apr 2019	ATEX component Cap – Part 4M
PCG/ATX/5M	1 of 1	5	17 Apr 2019	ATEX component middle cap – Part 5M
PCG/ATX/6M	1 of 1	5	17 Apr 2019	ATEX component outer cap – Part 6M
PCG/ATX/10M	1 of 1	5	17 Apr 2019	ATEX component clamp ring – Parts 10MW, 10XX
PCG/ATX/10MU	1 of 1	1	17 Apr 2019	ATEX component clamp ring – Parts 10MU
PCG/ATX/11M	1 of 1	3	17 Apr 2019	ATEX component skid washer – Parts 11MO
PCG/ATX/16M	1 of 1	3	17 Apr 2019	ATEX component integral earth clamp – Part 16M
PCG/ATX/E1W	1 of 2	8	17 Apr 2019	ATEX Range Cable Glands for Armoured Cable E****F* & D***F family
PCG/ATX/E1W	2 of 2	8	17 Apr 2019	ATEX Range Glands for Armoured Cable E****F* & D***F family
PCG/ATX/PEXMP	1 of 1	4	17 Apr 2019	Hazardous area approved products – marking plan
PCG/ETDMV	1 of 1	9	17 Apr 2019	Standard thread chart ATEX certified glands using “M”, “V” & “N” components
PCG/ETOR	1 of 1	12	17 Apr 2019	Accessories component entry thread O-ring seal part OR
PCG/ETRO	1 of 1	3	17 Apr 2019	Entry thread components run out specification
PCG/GESW	1 of 1	1	17 Apr 2019	Skid washer – Part GESW

Certificate Annex



Certificate Number CML 19ATEX4109X
Equipment Range of E****F* and D****F, CR-*** and CR-D**, A8**
A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L **,
A*LC***, A*RC*** Cable Glands
Manufacturer Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/LW2	1 of 1	8	17 Apr 2019	Accessories component continuity washer – Part LW2 (For E2**F)
PCG/MATS/AL	1 of 1	3	17 Apr 2019	Standard materials AL. Alloy ATEX certified glands using “M”, “V” & “N” components
PCG/MATS/SB	1 of 1	5	17 Apr 2019	Standard materials ATEX certified glands using “M”, “V” & “N” components
PCG/ORGD	1 of 1	6	17 Apr 2019	Component male threaded entry component O-ring Groove detail
PCG/PRE-PLT	1 of 1	2	17 Apr 2019	Peppers entry thread component pre-plate thread manufacturing tolerances

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/CR	1 to 2	10	10 Oct 2019	ATEX Range gland – CR-*** for armoured/ unarmoured/braided/ screened cable
PCG/ATX/CRD	1 to 2	7	10 Oct 2019	ATEX Range gland – CRD*** for armoured/ unarmoured/braided/ screened cable
PCG/ATX/1V	1 of 1	12	10 Oct 2019	ATEX Component Entry Body-Part 1V
PCG/ATX/1VOS	1 of 1	5	10 Oct 2019	ATEX Component Entry Body-Part 1V/110
PCG/ATX/1VT	1 of 1	6	10 Oct 2019	ATEX Component Entry Body-Part 1VT
PCG/ATX/2M	1 of 1	11	10 Oct 2019	ATEX Component Seal – Parts 2MI, 2MIS, 2MO, 2MOS, 2MOZS
PCG/ATX/2MOS	1 of 1	1	10 Oct 2019	ATEX Component Outer Seal-Part 2MO/110
PCG/ATX/3V	1 of 1	8	10 Oct 2019	ATEX Component Cone-Part 3V
PCG/ATX/4V	1 of 1	5	10 Oct 2019	ATEX Component Cap-Part 4V
PCG/ATX/5V	1 of 1	8	10 Oct 2019	ATEX Component Middle Cap-Part 5V
PCG/ATX/6M	1 of 1	6	10 Oct 2019	ATEX Component Outer Cap-Part 6M
PCG/ATX/6MOS	1 of 1	2	10 Oct 2019	ATEX Component Back Nut-Part 6M/110
PCG/ATX/8V	1 of 1	8	10 Oct 2019	ATEX Component Compression Bush-Part 8V
PCG/ATX/10V	1 of 1	4	10 Oct 2019	ATEX Component Armour Clamp Ring-Part 10V
PCG/ATX/11M	1 of 1	4	10 Oct 2019	ATEX Component Skid Washer Parts-11MI, 11MO
PCG/ATX/82N	1 of 1	8	10 Oct 2019	ATEX Component Seal- Parts 82N & 82NS
PCG/ATX/82NOS	1 of 1	1	10 Oct 2019	ATEX Component Seal-Part 82NI/110
PCG/ATX/82V	1 of 1	7	10 Oct 2019	ATEX Component Seal-Parts 82V, 82VS

Certificate Annex



Certificate Number CML 19ATEX4109X
Range of E**F* and D****F, CR-*** and CR-D**, A8****
Equipment A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**,
A*LC***, A*RC*** Cable Glands
Manufacturer Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/91A	1 of 1	4	10 Oct 2019	ATEX Component Skid Washer – Parts 91AS, 91AB, 91ABT
PCG/ATX/91V	1 of 1	6	10 Oct 2019	ATEX Component Skid Washer- Parts 91V, 91VB, 91VBT
PCG/LW3	1 of 1	6	10 Oct 2019	Accessory Component Continuity Washer – Part LW3 (For CR-2, CR-4, A1L & A4L)
PCG/ORGD	1 of 1	7	10 Oct 2019	Component Entry Body O-ring Groove Detail
PCG/ATX/1M	1 of 1	6	10 Oct 2019	ATEX Component Entry Body Parts 1M, 1M9
PCG/ATX/1MT	1 of 1	6	10 Oct 2019	ATEX Component Entry Body – NPT/BSPT Threads Parts 1MT, 1MT9
PCG/ATX/3MD	1 of 1	3	10 Oct 2019	ATEX Component Cone Part 3MD
PCG/ATX/4M	1 of 1	5	10 Oct 2019	ATEX Component Cap Part 4M
PCG/ATX/4MF	1 of 1	2	10 Oct 2019	ATEX Instrument Component Cap Conduit Part 4MF
PCG/ATX/4MM	1 of 1	2	10 Oct 2019	ATEX Instrument Component Cap Conduit Part 4mm
PCG/ATX/6MF	1 of 1	2	10 Oct 2019	ATEX Component Female Connector Cap Part 6MF
PCG/ATX/6MM	1 of 1	2	10 Oct 2019	ATEX Component Male Connector Cap Part 6MM
PCG/ATX/8M	1 of 1	3	10 Oct 2019	ATEX Component Compression Bush Part 8M
PCG/ATX/8MC	1 of 1	4	10 Oct 2019	ATEX Component Compression Bush – Spiral Part 8MC
PCG/ATX/11MR	1 of 1	2	10 Oct 2019	ATEX Instrument Component Skid Washer Parts 11MR
PCG/ATX/12M	1 of 1	6	10 Oct 2019	ATEX Component A8 Cap Part 12M
PCG/ATX/12MF	1 of 1	3	10 Oct 2019	ATEX Component A8 Female Threaded Connector Cap Part 12MF
PCG/ATX/12MM	1 of 1	3	10 Oct 2019	ATEX Component A8 Male Threaded Connector Cap Part 12MM
PCG/ATX/61M	1 of 1	5	10 Oct 2019	ATEX Instrument Component Entry Body Part 61M
PCG/ATX/63M	1 of 1	3	10 Oct 2019	ATEX Instrument Component Cone Part 63M
PCG/ATX/72M	1 of 1	4	10 Oct 2019	ATEX Instrument Component Seal – Slotted Parts 72MI, 72MO
PCG/ATX/74M	1 of 1	3	10 Oct 2019	ATEX Instrument Component Compression Bush Parts 74MI and 74MO
PCG/ATX/75M	1 of 1	4	10 Oct 2019	ATEX Instrument Component Compression Cap Part 75M
PCG/ATX/BF	1 to 2	8	10 Oct 2019	ATEX Instrument Range Flat Cable Heat Trace Types E8**, E8XC***, D8XC*** & D8X**

Certificate Annex



Certificate Number CML 19ATEX4109X
Range of E**F* and D****F, CR-*** and CR-D**, A8****
Equipment A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**,
A*LC***, A*RC*** Cable Glands
Manufacturer Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/UF	1 to 2	11	10 Oct 2019	ATEX Instrument Range Flat Cable Heat Trace Unarmoured Type A8**, A8C*** & A8RC** Series
PCG/ATX/81AN	1 of 1	7	10 Oct 2019	ATEX Component Entry Body Part 81AN
PCG/ATX/81ANT	1 of 1	6	10 Oct 2019	ATEX Component Entry Body – NPT/BSPT Threads Part 81AN
PCG/ATX/85N	1 of 1	5	10 Oct 2019	ATEX Component MID CAP Part 85N
PCG/ATX/87C	1 of 1	3	10 Oct 2019	ATEX Component Circlip Part 87C
PCG/ATX/88N	1 of 1	9	10 Oct 2019	ATEX Component NUT Part 88N
PCG/ATX/88NF	1 of 1	9	10 Oct 2019	ATEX Component Conduit Nut Female Part 88NF
PCG/ATX/88NH	1 of 1	3	10 Oct 2019	ATEX Component Hose Connector Part 88NH
PCG/ATX/88NM	1 of 1	8	10 Oct 2019	ATEX Component Conduit Nut Male Part 88NM
PCG/ATX/88NR	1 of 1	3	10 Oct 2019	ATEX Component Rotator Nut Part 88NR
PCG/ATX/89NC	1 of 1	10	10 Oct 2019	ATEX Component Rotating Conduit Nut – Spiral Part 89NC
PCG/ATX/89NF	1 of 1	3	10 Oct 2019	ATEX Component Rotating Conduit Nut – Female Part 89NF
PCG/ATX/89NM	1 of 1	3	10 Oct 2019	ATEX Component Rotating Conduit nut – Male Part 89NM
PCG/ATX/A2L	1 to 3	11	10 Oct 2019	ATEX Range Cable Glands for Unarmoured or Armoured Cable A Series Family
PCG/ATX/1MIE	1 of 1	9	10 Oct 2019	ATEX Component Entry Body – Integral Earth Part 1MIE
PCG/ATX/3M	1 of 1	8	10 Oct 2019	ATEX Component Cone Parts 3M, 3MX
PCG/ATX/5M	1 of 1	6	10 Oct 2019	ATEX Component Middle CAP PART 5M
PCG/ATX/E1W	1 to 2	9	10 Oct 2019	ATEX Range Cable Glands for Armoured Cable E****F* & D***F Family

Issue 2

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/4CF	1 of 1	1	10 Jan 2020	ATEX Instrument Component CAP, Conduit Part 4CF
PCG/ATX/4CM	1 of 1	1	10 Jan 2020	ATEX Component Male Connector CAP Part 4CM
PCG/ATX/6CF	1 of 1	1	10 Jan 2020	ATEX Component Female Connector CAP Part 6CF

Certificate Annex



Certificate Number CML 19ATEX4109X
Equipment Range of E****F* and D****F, CR-*** and CR-D**, A8**
A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**,
A*LC***, A*RC*** Cable Glands
Manufacturer Peppers Cable Glands Limited

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/CE	1 of 2	4	10 Jan 2020	ATEX Range cable glands for armoured cable C****E* family
PCG/ATX/CE	2 of 2	3	10 Jan 2020	ATEX Range cable glands for armoured cable C****E* family
PCG/ATX/E1W	1 to 3	10	10 Jan 2020	ATEX Range cable glands for armoured cable E****F* & D****F family
PCG/ATX/6CM	1 of 1	1	10 Jan 2020	ATEX Component Male Connector CAP Part 6CM