UK Type Examination Certificate CML 21UKEX1252X Issue 0

United Kingdom Conformity Assessment

1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

2 Equipment **Cable Gland Types E****

3 Manufacturer **CMP Products Ltd**

4 Address **Unit 36 Nelson Way,**
Nelson Park East,
Cramlington, Northumberland,
NE23 1WH, UK

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

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 60079-1:2014 EN 60079-7:2015+A11:2018

EN 60079-31:2014

10 The equipment shall be marked with the following:

I M2	II 2G	II 1 D
Ex eb I Mb Ex db I Mb	Ex eb IIC Gb Ex db IIC Gb	Ex ta IIIC Da

Ta = -60°C to +130°C*

Ta = -20°C to +200°C**

* When fitted with the standard seal
** When fitted with the high temperature seal

Certification Officer

11 Description

The E** series Type ranges of cable glands consist of a male-threaded front entry component containing an elastomeric sealing ring and a Nylon 6 skid washer which effect flameproof sealing onto the cable inner sheath and is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The flameproof seal is actuated by an adjoining coupling component. The coupling component is attached to a main body. Their mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armoured or braided cable is effected by a combination of the coupling component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

Design options:-

- The option for metric threaded cable entry spigots of all cable gland model series to be manufactured with a thread pitch between 0.7mm and 2.0mm.
- The front entry component may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RE1FW.
- Materials of manufacture:

  Brass to EN12168:1998 Grade CuZn39Pb (CW614N)

  Mild steel to BS EN 10088-3:2005 Grade 220M07Pb

  Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33

  Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)
- Alternative entry component thread forms:

  Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads

  ET(Conduit) BS 31:1940 (1979), Table A

  PG DIN 40430:1971

  BSPP BS 2779:1973 class A full form for external threads

  BSPT BS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A

  ISO ISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads

  NPT ANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads

  NPSM ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads
- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.
- The use of alternative armour clamping components specified by the cable gland type designation. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- The use of a component having an alternative profile allowing an integral earthing facility. The type designation identifying the cable gland being fitted with this option.
- The use of metallic continuity diaphragm component specified by the cable gland type designation for use when terminating lead sheathed cables.
- The use of an earthing device component specified by the cable gland type designation for use with variable speed drive (VSD) / variable frequency drive (VFD) cables.
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The use of seals suitable for flat form cables
- The use of an O ring seal between the body and the entry item to provide a deluge seal.

- Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.
- The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked 'Ex e only' to indicate that the gland is not suitable for Ex d applications when the disc is fitted.

The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland size	Entry thread	Entry thread 'B' version	Inner seal sheath range Ø (mm)		SWA (mm)		SWA, STA, strip armour, pliable wire armour* & wire braid (mm)		Outer seal sheath range Ø (mm)	
			Min	Max	Min	Max	Min	Max	Min	Max
16	M16 x 1.5	-	3.1	8.6	0.8	1.25	0	0.8	6.1	13.2
20s/16	M20 x 1.5	M25 x 1.5	3.1	8.6	0.8	1.25	0	0.8	6.1	13.2
20s16/20s	M20 x 1.5	M25 x 1.5	3.1	8.6	0.8	1.25	0	0.8	9.5	15.9
20s	M20 x 1.5	M25 x 1.5	6.1	11.6	0.8	1.25	0	0.8	9.5	15.9
20s/20	M20 x 1.5	M25 x 1.5	6.1	11.6	0.8	1.25	0	0.8	12.5	20.9
20	M20 x 1.5	M25 x 1.5	6.5	13.9	0.8	1.25	0	0.8	12.5	20.9
20/25s	M20 x 1.5	M25 x 1.5	6.5	13.9	1.25	1.6	0	1.1	14.0	22.0
20/25	M20 x 1.5	M25 x 1.5	6.5	13.9	1.25	1.6	0	1.1	18.2	26.2
25s	M25 x 1.5	M32 x 1.5	11.1	19.9	1.25	1.6	0	1.1	14.0	22.0
25	M25 x 1.5	M32 x 1.5	11.1	19.9	1.25	1.6	0	1.1	18.2	26.2
25/32	M25 x 1.5	M32 x 1.5	11.1	19.9	1.6	2.0	0	1.2	23.7	33.9
32	M32 x 1.5	M40 x 1.5	17.0	26.2	1.6	2.0	0	1.2	23.7	33.9
32/40	M32 x 1.5	M40 x 1.5	17.0	26.2	1.6	2.0	0	1.2	27.9	40.4
40	M40 x 1.5	M50 x 1.5	22.0	32.1	1.6	2.0	0	1.2	27.9	40.4
40/50s	M40 x 1.5	M50 x 1.5	22.0	32.1	2.0	2.5	0	1.5	35.2	46.7
50s	M50 x 1.5	M63 x 1.5	29.5	38.1	2.0	2.5	0	1.5	35.2	46.7
50s/50	M50 x 1.5	M63 x 1.5	29.5	38.1	2.0	2.5	0	1.5	40.4	53.1
50	M50 x 1.5	M63 x 1.5	35.6	44.0	2.0	2.5	0	1.5	40.4	53.1
50/63s	M50 x 1.5	M63 x 1.5	35.6	44.0	2.0	2.5	0	1.5	45.6	59.4
63s	M63 x 1.5	M75 x 1.5	40.1	49.9	2.0	2.5	0	1.5	45.6	59.4
63s/63	M63 x 1.5	M75 x 1.5	40.1	49.9	2.0	2.5	0	1.5	54.6	65.9
63	M63 x 1.5	M75 x 1.5	47.2	55.9	2.0	2.5	0	1.5	54.6	65.9
63/75s	M63 x 1.5	M75 x 1.5	47.2	55.9	2.0	2.5	0	1.5	59.0	72.1
75s	M75 x 1.5	M90 x 2.0	52.8	61.9	2.0	2.5	0	1.5	59.0	72.1
75s/75	M75 x 1.5	M90 x 2.0	52.8	61.9	2.5	3.0	0	1.5	66.7	78.5
75	M75 x 1.5	M90 x 2.0	59.1	67.9	2.5	3.0	0	1.5	66.7	78.5
75/90	M75 x 1.5	M90 x 2.0	59.1	67.9	3.0	3.5	0	1.6	76.2	90.4
90	M90 x 2.0	M100 x 2.0	66.6	79.9	3.0	3.5	0	1.6	76.2	90.4
90/100	M90 x 2.0	M100 x 2.0	66.6	79.9	3.15	4.0	0	1.6	86.1	101.5
100	M100 x 2.0	M115 x 2.0	76.0	90.9	3.15	4.0	0	1.6	86.1	101.5
100/115	M100 x 2.0	M115 x 2.0	76.0	90.9	3.15	4.0	0	1.6	101.5	110.3
115	M115 x 2.0	M130 x 2.0	86.0	97.9	3.15	4.0	0	1.6	101.5	110.3
115/130	M115 x 2.0	M130 x 2.0	86.0	97.9	3.15	4.0	0	1.6	110.2	123.3
130	M130 x 2.0	N / A	97.0	114.9	3.15	4.0	0	1.6	110.2	123.3

E*-FF in these sizes only:

Gland size	Entry thread	Entry thread 'B' version	Cable inner seal sheath range–(mm)		Cable outer seal sheath range (mm)	
			Min	Max	Min	Max
20s	M20 x 1.5	M25 x 1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20 x 1.5	M25 x 1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

Type designation code:

E F / __

D =	Fitted with Deluge seal
C =	Fitted with the alternative cast integral earth lug entry component.
VAR =	Fitted with an additional metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables.
FF =	Fitted with seals suitable for flat form cables
W =	Fitted with single plain armour cone & reversible armour sleeve to suit SWA cables.
X =	Fitted with single grooved armour cone & reversible armour sleeve to suit SWA, STA, strip armoured, pliable wire armoured and braided cables.
U =	Fitted with reversible armour cone & reversible armour sleeve to suit SWA, STA, strip armoured, pliable wire armoured and braided cables.
VAR =	Optional construction where the cone and sleeve assembly is replaced by a metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables.
1 =	Standard circular armoured and braided cables.
2 =	Fitted with additional metallic continuity diaphragm for the use with inner lead sheathed SWA, strip armoured and braided cables.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	29 July 2021	R13914AO/00	Issue of the prime certificate. CML 18ATEX1324X, Issue 0 is attached and shall be referred to in conjunction with this certificate.

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

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

14 Specific Conditions of Use

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

i. The E**-Type cable glands shall not be used to terminate on braided cables in group I applications.

ii. The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

iii. When the cable glands are supplied with an entry thread that is one size up from the nominal gland size, designated with the letter ‘B’ after the gland size, e.g. 32B****, they shall not be used with any adaptor device.

iv. When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.

Certificate Annex

Certificate Number	**CML 21UKEX1252X**
Equipment	**Cable Gland Types E****
Manufacturer	**CMP Products Ltd**

The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate CML 18ATEX1324X. In addition to the drawings listed on CML 18ATEX1324X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
GA355	1 of 1	02	29 July 2021	E TYPE SERIES GENERAL ARRANGEMENT