

UK Type Examination Certificate CML 21UKEX1261X Issue 0**United Kingdom Conformity Assessment**

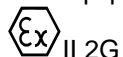
- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **Type TMCX and TMC Range of Cable Glands**
- 3 Manufacturer **CMP Products Ltd**
- 4 Address **Unit 36 Nelson Way,
Nelson Park East,
Cramlington, NE23 1WH,
United Kingdom**
- 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 60079-0:2018 EN 60079-1:2014 EN 60079-7:2015+A1:2018

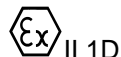
EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex db IIC Gb (TMCX)

Ex eb IIC Gb



Ex ta IIIC Da

Ta: TMCX Types: -60°C to +85°C (based upon sealing compound)

TMC Types: -60°C to +130°C





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11 Description

The TMCX range of barrier type cable glands are designed for use with flexible MC-HL type cables. Each gland comprises a male-threaded front entry component, a compound tube, a rear component, a spring ring and an outer compression nut / seal arrangement.

The compound tube is fitted such that a spigot/combination joint is formed. The compound tube contains a setting compound that affects a flameproof seal around the cable cores passing through it and is mechanically retained. The cable is additionally retained by a spring ring compressed between the two components onto the corrugated metal armour sheath.

Additional sealing is achieved by the outer nut compressing an elastomeric seal onto the cable sheath. Cable and gland combinations/specifications are tabulated on CMP drawing GA167.

The TMC range of compression type cable glands are identical to the TMCX types but with the compound tube omitted and the front-end component modified. Cable and gland combinations/specifications are tabulated on CMP drawing GA166.

Design options

Materials of manufacture:

The standard material supplied is:

Aluminium	BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 / BS EN 1676:2010 Grade LM25 TF Aluminium will contain less than 6% magnesium
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Alternate materials are:

Stainless steel	BS EN 10088-3:2014 Grades 316S11, 316S13, 316S31, 316S33, 316L
Mild steel	BS EN 10277-2:2008 Grades 220M07, 230M07 (EN1A) / 220M07Pb, 230M07Pb (EN1APb)
Brass	BS EN 12164:2011/ BS EN 12168:2011 Grade CuZn39Pb3 (CW614N) All brass manufactured component parts can be optionally nickel plated to a maximum of 0.008mm

Alternative entry component thread forms:

Metric	ISO 965-1, ISO 965-3 medium fit (6g) for external threads
ET (Conduit)	BS31:1940 (1979), Table A
PG	DIN 40430:1971
BSPP	BS2779:1986 class A full form for external threads
BSPT	BS21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO	ISO 7/1:1994, gauging to ISO 7/2 clause 6.3 for external threads
NPT	ANSI/ASME B1.20.1-2013 gauging to clause 3.2 for external threads
NPSM	ANSI/ASME B1.20.1-2013 gauging to clause 6.4 for external threads



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TMCX cable glands -

Catalogue designation	Gland Size	Cable armour diameter range (mm)	Cable outer sheath diameter range (mm)	Max number of cores	Max. diameter over core of single core cable (mm) (See note 1)	Max. diameter of individual core of multi core cable (mm)	Max. diameter over cores of multi core cable (mm)	Metric thread size	NPT thread size
TMCX050S	050S	8.69 – 12.7	8.99 – 13.9	11	8.94	2.47	9.91	-	½"
TMCX050	050	12.95 – 17.0	11.1 – 20.0	11	11.62	3.14	12.6	M20	½"
TMCX075	075	15.0 – 23.3	17.0 – 26.3	21	16.05	3.29	17.5	M25	¾"
TMCX100	100	19.7 – 29.2	22.0 – 32.2	38	21.46	3.33	23.6	M32	1"
TMCX125	125	27.5 – 35.2	29.5 – 38.2	59	27.19	3.43	30.0	M40	1¼"
TMCX150	150	33.5 – 41.1	35.6 – 44.1	89	33.09	3.37	36.6	M50	1½"
TMCX200S	200S	38.3 – 47.1	40.1 – 50.1	115	37.03	3.34	41.0	M50	2"
TMCX200	200	45.0 – 53.0	47.2 – 56.0	115	43.29	3.91	47.9	M63	2"
TMCX250S	250S	52.1 – 58.9	52.8 – 62.0	140	48.39	3.97	53.7	M63	2½"
TMCX250	250	57.0 – 64.6	59.1 – 68.0	140	53.93	4.43	59.9	M75	2½"
TMCX300	300	64.6 – 75.3	66.6 – 79.4	140	67.71	4.75	64.3	M90	3"
TMCX350	350	73.99 – 88.5	76.0 – 97.2	140	75.13	4.69	75.7	M100	3½"
TMCX400	400	73.99 – 88.5	76.0 – 97.2	200	75.13	5.17	83.6	M115	4"

Note 1 – when installing a single conductor/core only, through the barrier.

TMC cable glands -

Catalogue designation	Gland Size	Cable armour diameter range (mm)	Cable outer sheath diameter range (mm)	Metric thread size	NPT thread size
TMC050S	050S	8.69 – 12.7	8.99 – 13.9	M20	½"
TMC050	050	12.95 – 17.0	11.1 – 20.0	M20	½"
TMC075	075	15.0 – 23.3	17.0 – 26.3	M25	¾"
TMC100	100	19.7 – 29.2	22.0 – 32.2	M32	1"
TMC125	125	27.5 – 35.2	29.5 – 38.2	M40	1¼"
TMC150	150	33.5 – 41.1	35.6 – 44.1	M50	1½"
TMC200S	200S	38.3 – 47.1	40.1 – 50.1	M50	2"
TMC200	200	45.0 – 53.0	47.2 – 56.0	M63	2"
TMC250S	250S	52.1 – 58.9	52.8 – 62.0	M63	2½"



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Catalogue designation	Gland Size	Cable armour diameter range (mm)	Cable outer sheath diameter range (mm)	Metric thread size	NPT thread size
TMC250	250	57.0 – 64.6	59.1 – 68.0	M75	2½"
TMC300	300	64.6 – 75.3	66.6 – 79.4	M90	3"
TMC350	350	73.99 – 88.5	76.0 – 97.2	M100	3½"
TMC400	400	73.99 – 88.5	76.0 – 97.2	M115	4"

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	12 July 2021	R13914AX/00	Issue of the prime certificate. CML 18ATEX1337X, 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. The TMCX cable glands interface O-ring seal when fitted shall have a continuous operating temperature range at least equal to -60°C to +105°C.
- ii. The TMC cable glands interface O-ring seal when fitted shall have a continuous operating temperature range at least equal to -60°C to +150°C.
- iii. The TMC cable glands front threaded entry item may be provided with, but not limited to, an alternative nearest equivalent recognised thread type and size to the metric thread, whilst maintaining a tolerance of fit, equal or better than, a medium fit to ISO 965-1 & ISO 965-3.
For example:
ET - BS 31:1940 (1979) Table 'A' PG - DIN 40430:1971
BSPP – BS 2779:1986 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 7/1:1994 gauging to ISO 7/2 clause 6.3 for external threads.
NPSM - ANSI/ASME B1.20.1:1983 B1.20.1-1983 gauging to clause 9 for external threads.



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14 Specific Conditions of Use

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

- i. The interfaces between the cable glands and their associated enclosures/cable entry cannot be defined. Therefore, it is the user's responsibility to ensure that the minimum ingress protection level (IP54 for explosive gas atmospheres and IP6X explosive dust atmospheres) is maintained at these interfaces, this can be achieved using the manufacturer's guidance, as given in the user installation manual, and reference to IEC/EN 60079-14. (Note: When fitted within threaded entries, all tapered threads, will automatically provide an ingress protection rating IP6X.)
- ii. The cable glands shall only be used where the temperature, at the point of entry, is in the following ranges:
 - TMCX Types: -60°C to +85°C (Based upon sealing compound)
 - TMC Types: -60°C to 130°C
- iii. TMCX & TMC cable glands > size 40 shall only be used on fixed installations and where the cable is effectively clamped.
- iv. The TMCX cable glands comprise a flameproof labyrinth joint having length and gap dimensions which are other than those specified in EN 60079-1 and are not intended to be repaired in service.
- v. The TMCX cable glands front threaded 'entry item' may be provided with, but not limited to, an alternative nearest equivalent recognised thread type and size to the metric thread, whilst maintaining a tolerance of fit, equal to or better than a medium fit to ISO 965-1 & ISO 965-3. Intended for use within existing installations only, that incorporate thread types that are no longer permitted by the current edition of EN 60079-1, but comply with the requirements of EN 50018:2000
For example:
ET - BS 31:1940 (1979) Table 'A' PG - DIN 40430:1971
BSPP – BS 2779:1986 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 7/1:1994 gauging to ISO 7/2 clause 6.3 for external threads.
NPSM - ANSI/ASME B1.20.1:1983 B1.20.1-1983 gauging to clause 9 for external threads

Certificate Annex

Certificate Number CML 21UKEX1261X
Equipment Type TMCX and TMC Range of Cable Glands
Manufacturer CMP Products Ltd



The following documents describe the equipment defined in this certificate:

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For drawings describing the equipment, refer to attached certificate CML 18ATEX1337X. In addition to the drawings listed on CML 18ATEX1337X, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
GA166	1 to 2	05	12 July 2021	TMC ARRANGEMENT DRAWING
GA167	1 to 2	05	12 July 2021	TMCX ARRANGEMENT DRAWING