



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 18.0184X Issue No: 0 Certificate history:
Issue No. 0 (2019-03-26)

Status: **Current** Page 1 of 3

Date of Issue: **2019-03-26**

Applicant: **CMP Products Ltd**
Unit 36 Nelson Way, Nelson Park East, Cramlington, Northumberland, NE23 1WH
United Kingdom

Equipment: **TMCX and TMC Ranges of Cable Glands**
Optional accessory:

Type of Protection: **Flameproof "db", Increased Safety "eb", Dust Ignition "ta"**

Marking:

Ex db IIC Gb (TMCX only)

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

Approved for issue on behalf of the IECEx
Certification Body:

R C Marshall

Position:

Certification Officer

Signature:
(for printed version)

Date:

2019-03-27

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **CMP Products Ltd**
Unit 36 Nelson Way, Nelson Park East, Cramlington, Northumberland, NE23 1WH
United Kingdom

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/CML/ExTR19.0052/00](#)

Quality Assessment Report:

[GB/CML/QAR19.0001/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 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.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for specific conditions of use.

Annex:

[IECEX CML 18.0184X Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML 18.0184X Iss. 0
Applicant: CMP Products Ltd
Apparatus: Type TMCX and TMC Range of Cable Glands



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

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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

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"
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"

Notes:

- Sira 07ATEX1122X and IECEx SIR 07.0083X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 07ATEX1122X and IECEx SIR 07.0083X.
- Where Sira 07ATEX1122X and/or IECEx SIR 07.0083X 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.

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.

Specific Conditions of Use (Special Conditions)

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