



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 09ATEX1165X** Issue: **1**

4 Equipment: **TMC2X Range of Cable Glands**

5 Applicant: **CMP Products Limited**

6 Address: **Glasshouse Street
St. Peters
Newcastle-upon-Tyne
Tyne & Wear NE6 1BS
UK**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012 EN 60079-1:2007 EN 60079-7:2007 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2G 1D
Ex d IIC Gb
Ex e IIC Gb
Ex ta IIIC Da

Note: The service temperature range of the equipment is -60°C to +85°C.

Project Number 70006236

C Ellaby
Deputy Certification Manager

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13 DESCRIPTION OF EQUIPMENT

The TMC2X Range of Cable Glands are designed to be threaded into suitably certified enclosures to permit the entry of metal clad (MC) cables. Each gland comprises a threaded front item and a nut housing an elastomeric sealing ring and clamping spring assembly. The assembly is compressed by the rear threaded rear nut.

TMC2X types are provided with a compound seal and tube arrangement effectively sealing the cable cores.

The metallic parts may be manufactured in the following materials:

- Brass CuZn39Pb
- Aluminium LM25 or 6082 T6
- Stainless steel grade 316
- Mild steel grade 220M07

Gland / seal sizes are proportional to the cable outer diameter as the table below:

Gland title		Range take (inches)		Max. no. of cores	Typical entry thread size	
Original (Issue 0)	Current (Issue 1)	Min.	Max.		NPT	Metric
TMC2X050S	TMC2X**075	0.500	0.750	11	½"	M20 x 1.5
TMC2X050	TMC2X**099	0.690	0.990	11	¾"	M20 x 1.5
TMC2X075	TMC2X**118	0.870	1.180	21	1"	M25 x 1.5
TMC2X100	TMC2X**137	1.020	1.370	38	1¼"	M32 x 1.5
TMC2X125S	TMC2X**162	1.300	1.620	59	1½"	M40 x 1.5
TMC2X125	TMC2X**190	1.570	1.900	59	1½"	M40 x 1.5
TMC2X150S	TMC2X**200	1.650	2.000	89	2"	M50 x 1.5
TMC2X150	TMC2X**233	1.900	2.320	89	2"	M50 x 1.5
TMC2X200S	TMC2X**233	1.900	2.320	115	2½"	M63 x 1.5
TMC2X200	TMC2X**272	2.270	2.710	115	2½"	M63 x 1.5
TMC2X250	TMC2X**272	2.270	2.710	140	3"	M75 x 1.5
TMC2X300	TMC2X**325	2.610	3.250	140	3½"	M90 x 1.5
TMC2X350	TMC2X**376	3.160	3.760	140	4"	M100 x 1.5
TMC2X400	TMC2X**425	3.700	4.250	200	4"	M115 x 1.5
N/A	TMC2X-M50**1621RA*/S	1.300	1.620	59	N/A	M50 x 1.5
N/A	TMC2X-M63**233/2001RA*	1.650	2.000	89	N/A	M63 x 1.5

Available thread types:

- 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. ISO7/1:1982, 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.

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Sira Certification Service

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Variation 1 - This variation introduced the following changes:

- i. Additional schedule drawings for the existing TMC2X range of cable glands were introduced; these drawings clarify the construction of the glands.
- ii. The introduction of two sizes of glands that have an alternative construction, these glands have the following designations:
 - TMC2X-M50**1621RA*/S
 - TMC2X-M63**233/2001RA*
- iii. The maximum flamepath gap of the labyrinth joint was increased from 0.08 mm to 0.15 mm; a condition was introduced to recognise that the lengths and gaps are other than those specified in EN 60079-1.
- iv. The gland title was changed to reflect the maximum outer sheath diameter in inches that each size will accommodate (typical reference TMC2X**075, where ** defines the entry thread size). The table in the description was amended to review the listed information including the recognition of the new gland titles and sizes.
- v. Following appropriate assessment to demonstrate compliance with the requirements of the latest EN 60079 series of standards, the documents previously listed in the certificate, EN 60079-0:2006 and EN 61241-1:2004, were replaced by EN 60079-0:2012 and EN 60079-31:2014 respectively, the marking being updated accordingly.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	24 August 2009	R51L17461B	The release of the prime certificate.
1	22 December 2014	R70006236A	The introduction of Variation 1.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

- 15.1 The glands shall only be fitted to enclosures where the temperature, at the point of mounting, is below 85°C.
- 15.2 The cable shall be effectively clamped as close as possible to the gland.
- 15.3 When used for 'Ex e' or 'Ex ta' applications the user shall provide a suitable interface seal between the gland and associated enclosure to maintain the level of ingress protection of the enclosure they are fitted to.
- 15.4 The TMC2X cable glands comprise of 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.

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16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

Certificate Annexe

Certificate Number: Sira 09ATEX1165X
Equipment: TMC2X Range of Cable Glands
Applicant: CMP Products Limited



Issue 0

Drawing No.	Sheets	Issue	Date (Sira stamp)	Title
GA206	1 of 1	02	12 Aug 09	TMC2X Arrangement

Issue 1

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
GA206	1 of 1	03	08 Dec 14	TMC2X GA Drawing
SCH0302	1 of 1	01	18 Nov 14	TMC2 & TMC2X Compression Nut
SCH0303	1 of 1	01	18 Nov 14	TMC2 & TMC2X Angled Spacer
SCH0304	1 of 1	01	18 Nov 14	TMC2 & TMC2X Outer Seal
SCH0305	1 of 1	01	18 Nov 14	TMC2 S/Steel Compression Springs
SCH0306	1 of 1	02	22 Dec 14	TMC2X Item 1
SCH0307	1 of 1	01	18 Nov 14	TMC2X Thread Spacer
SCH0308	1 of 1	01	18 Nov 14	TMC2X Tube Spacer
SCH0310	1 of 1	02	18 Nov 14	Compound Tube Metric + Variants
SCH0379	1 of 1	00	22 Dec 14	Compound Tubes - NPT
SCH0387	1 of 1	00	18 Nov 14	TMC2 End Stop
SCH0388	1 of 1	00	18 Nov 14	Resin Diaphragm Seal
SCH0392	1 of 1	00	18 Nov 14	TMC2X Item 1 – Metric
GA672	1 of 1	00	08 Dec 14	RMSPT – TMC2X GA Drawing
SCH0384	1 of 1	00	18 Nov 14	RMSPT – TMC2X Item 1
SCH0385	1 of 1	00	18 Nov 14	RMSPT – TMC2X Threaded Spacers
SCH0386	1 of 1	00	18 Nov 14	RMSPT – TMC2X Tube Spacer

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