## TECHNICAL DATA

| | |
|---|---|
| **CABLE GLAND TYPE** | : TMC2 |
| **INGRESS PROTECTION** | : IP66, NEMA 4X |
| **PROCESS CONTROL SYSTEM** | : ISO 9001 |
| | : ISO/IEC 80079-34:2011 |

## EXPLOSIVE ATMOSPHERES CLASSIFICATION

| | |
|---|---|
| **ATEX CERTIFICATION No** | : CML 18ATEX1335X |
| **ATEX CERTIFICATION CODE** | : Ⓔx II 2G 1D, Ex eb IIC Gb, Ex ta IIIC Da |
| **UKEX CERTIFICATION No** | : CML 21UKEX1262X |
| **UKEX CERTIFICATION CODE** | : Ⓔx II 2G 1D, Ex eb IIC Gb, Ex ta IIIC Da |
| **IECEx CERTIFICATION IECEx** | : IECEx CML 18.0192X |
| **IECEx CERTIFICATION CODE** | : Ex eb IIC Gb, Ex ta IIIC Da |
| **cCSAus CERTIFICATION No** | : 2194053 |
| **CSAus CERTIFICATION No** | : Class II, Groups E,F and G; Class III; Enclosure type 4X; Class I, Zone 1, AEx e II, AEx ta IIC ; Ex e II |
| **cCSA CERTIFICATION No** | : Class I, Div 2, Groups A, B, C and D; Class II, Groups E,F and G; Class III Enclosure type 4X; Ex e II; Class I, Zone 1 Ex e II , Ex ta IIC |

## INSTALLATION INSTRUCTIONS

Installation should only be performed by a competent person using the correct tools. Read all instructions before beginning installation.

## INSTALLATION GUIDANCE NOTES

1. In accordance with NEC requirements, glands with NPT and Metric entry threads are suitable for both Divisions and Zones.
2. In accordance with CEC requirements, glands with NPT threads are suitable for both Divisions and Zones. Glands with Metric threads are only suitable for Zones fitted with an approved Metric to NPT thread conversion adaptor.
3. The interface between a cable entry device and its associated enclosure / cable entry will require additional sealing to achieve ingress protection (IP) ratings higher than IP54. The minimum protection level is IP54 for explosive gas atmospheres and IP6X for explosive dust atmospheres. Parallel threads (and tapered threads when using a non-threaded entry) require a CMP sealing washer or integral O-ring face seal (where available) to maintain IP66, 67 and 68 (when applicable). It is the installer's responsibility to ensure the IP rating is maintained at the interface.
   Note: When fitted to a threaded entry, all tapered threads on TMC2 product will automatically provide an ingress protection rating of IP66.
4. A CMP earth tag should be used when it is necessary to provide an earth bond connection. CMP earth tags have been independently tested to comply with Category B rating specified in IEC 62444 (there are no ratings stated in IEC 60079-0). Ratings are shown in the associated table. CMP earth tags slip over the cable gland or accessory entry thread from inside/outside the enclosure and must be secured with a locknut (if fitted internally).
5. Metric entry threads comply with ISO 965-1 and ISO 965-3 with a 6g tolerance as required by IEC 60079-1:2014. The CMP standard metric thread pitch is 1.5mm for threads up to M75, and 2.0mm from M90 and above. Special thread pitches between 0.7 – 2.0mm are available on all products on request. See certificate for details of other thread types. NPT threads are in accordance with ASME B1.20.1-2013 gauging to Cl 3.2 for external threads. For details of other thread types refer to IECEx certificate.
6. Enclosures must be strong enough to support the cable and cable gland assembly. The enclosure surface finish must be smooth and flat to facilitate sealing with an O-ring or Entry Thread Sealing Washer for the required IP rating.
7. Enclosure walls must be sufficiently strong enough to support the cable and cable gland assembly. Enclosure entries shall be perpendicular. Any draft angles from the casting/moulding process should have a perpendicular flat spot machined to facilitate sealing with an O-ring or Entry Thread Sealing Washer.
8. CMP Products recommends that when using the cable gland with a through-hole, the hole must be circular, free of burrs and the diameter no larger than 0.7mm above the thread major diameter. A suitable CMP Products locknut shall be used to secure the product. See CMP Products catalogue for locknut options
9. Cable glands do not have any serviceable parts and are therefore not intended to be repaired.

| CMP Earth Tag Size | Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second |
|---|---|
| 20 | 3.06 |
| 25 | 4.06 |
| 32 | 5.40 |
| 40 | 7.20 |
| 50 | 10.40 |
| 63 | 10.40 |
| 75 | 10.40 |

## SPECIAL CONDITIONS FOR SAFE USE

1. The glands shall only be fitted to enclosures where the temperature, at the point of mounting, is below 110°C (230°F).
2. The cable shall be effectively clamped as close as possible to the gland.
3. When used for increased safety (Ex e) or dust protection by enclosure (Ex t) applications, the user shall provide a suitable interface seal between the gland and associated enclosure to maintain the appropriate level of ingress protection of IP54 for increased safety and IP6X for dust protection by enclosure.
4. Connectors with metric entry threads are only suitable for Areas Classified in ZONES unless fitted with an approved Metric to NPT thread conversion adaptor.

## ACCESSORIES

The following accessories are available from the manufacturer, as optional extras, to assist with fixing, sealing and earthing: Locknut | Earth Tag | Serrated Washer

CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and UK statutory requirements SI 2016 No. 1107 (as amended). This is shown in the following harmonised/designated standards;
EN 60079-0:2018, EN 60079-7:2015 + A1:2018, EN 60079-31:2014, BS 6121:1989, EN 62444:2013

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17th March 2020

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UK CA 2503

Notified Body: CML B.V., Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands

Approved Body: Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ

SCAN FOR INSTALLATION VIDEOS

# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPE TMC2

CMP TYPE TMC2 CABLE GLAND FOR USE WITH INTERLOCKED AND CORRUGATED CONTINUOUSLY WELDED METAL CLAD (TYPE MC OR MC-HL) OR TECK ARMORED AND ARMORED AND JACKETED CABLES IN ORDINARY, WET AND HAZARDOUS LOCATIONS.

**INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU AND UK STATUTORY REQUIREMENTS SI 2016 No. 1107 (AS AMENDED)**

**Cable Gland Selection Table**

| Order Reference (NPT suffix required) | | | Entry Thread | | Minimum Thread Length | Cable Armor Diameter | | | | Cable Jacket Diameter | | Thru Bore | Across Flats | Across Corners | Nominal Assembly Length | Shroud | Approx Weight Aluminum (oz) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Armor Stop In | | Armor Stop Out | | | | | | | | | |
| Aluminum | Nickel Plated Brass | Stainless Steel | NPT Standard | NPT Option | | Min | Max | Min | Max | Min | Max | Max | Max | Max | | | |
| TMC2-050A075 | TMC2-050NB075 | TMC2-050SS075 | ½" | - | 0.78 | 0.42 | 0.55 | 0.55 | 0.63 | 0.50 | 0.75 | 0.51 | 1.20 | 1.32 | 2.44 | PVC06 | 2.29 |
| TMC2-075A075 | TMC2-075NB075 | TMC2-075SS075 | - | ¾" | 0.80 | 0.42 | 0.55 | 0.55 | 0.63 | | | 0.51 | | | | | |
| TMC2-050A099 | TMC2-050NB099 | TMC2-050SS099 | ½" | - | 0.78 | 0.60 | 0.65 | 0.65 | 0.89 | 0.69 | 0.99 | 0.61 | 1.48 | 1.63 | 2.96 | PVC09 | 3.00 |
| TMC2-075A099 | TMC2-075NB099 | TMC2-075SS099 | - | ¾" | 0.80 | 0.60 | 0.78 | 0.78 | 0.89 | | | 0.75 | | | | | |
| TMC2-075A118 | TMC2-075NB118 | TMC2-075SS118 | ¾" | - | 0.80 | 0.79 | 0.86 | 0.86 | 1.10 | 0.87 | 1.18 | 0.82 | 1.81 | 1.99 | 3.15 | PVC11 | 5.11 |
| TMC2-100A118 | TMC2-100NB118 | TMC2-100SS118 | - | 1" | 0.98 | 0.79 | 0.98 | 0.98 | 1.10 | | | 0.95 | | | | | |
| TMC2-100A137 | TMC2-100NB137 | TMC2-100SS137 | 1" | - | 0.98 | 0.94 | 1.08 | 1.08 | 1.28 | 1.02 | 1.37 | 1.04 | 2.05 | 2.26 | 3.55 | PVC15 | 6.70 |
| TMC2-125A137 | TMC2-125NB137 | TMC2-125SS137 | - | 1 ¼" | 1.01 | 0.94 | 1.18 | 1.18 | 1.28 | | | 1.14 | | | | | |
| TMC2-125A162 | TMC2-125NB162 | TMC2-125SS162 | 1 ¼" | - | 1.01 | 1.22 | 1.35 | 1.35 | 1.50 | 1.30 | 1.62 | 1.31 | 2.36 | 2.60 | 3.59 | PVC18 | 8.82 |
| TMC2-150A162 | TMC2-150NB162 | TMC2-150SS162 | - | 1 ½" | 1.03 | 1.22 | 1.42 | 1.42 | 1.50 | | | 1.38 | | | | | |
| TMC2-125A190 | TMC2-125NB190 | TMC2-125SS190 | 1 ¼" | - | 1.01 | - | - | 1.51 | 1.72 | 1.57 | 1.90 | 1.37 | 2.56 | 2.82 | 3.59 | PVC37 | 9.45 |
| TMC2-150A190 | TMC2-150NB190 | TMC2-150SS190 | - | 1 ½" | 1.03 | - | - | 1.51 | 1.72 | | | 1.54 | | | | | |
| TMC2-150A200 | TMC2-150NB200 | TMC2-150SS200 | 1 ½" | - | 1.03 | 1.57 | 1.70 | 1.70 | 1.88 | 1.65 | 2.00 | 1.61 | 2.75 | 3.03 | 3.76 | PVC21 | 11.06 |
| TMC2-200A200 | TMC2-200NB200 | TMC2-200SS200 | - | 2" | 1.06 | 1.57 | 1.70 | 1.70 | 1.88 | | | 1.65 | | | | | |
| TMC2-150A233 | TMC2-150NB233 | TMC2-150SS233 | - | 1 ½" | 1.03 | - | - | 1.81 | 2.21 | | | 1.61 | | | | | |
| TMC2-200A233 | TMC2-200NB233 | TMC2-200SS233 | 2" | - | 1.06 | - | - | 1.81 | 2.21 | 1.90 | 2.33 | 2.03 | 2.95 | 3.25 | 3.97 | PVC23 | 12.77 |
| TMC2-250A233 | TMC2-250NB233 | TMC2-250SS233 | - | 2 ½" | 1.57 | - | - | 1.81 | 2.21 | | | 2.03 | | | | | |
| TMC2-200A272 | TMC2-200NB272 | TMC2-200SS272 | - | 2" | 1.06 | 2.14 | 2.46 | 2.17 | 2.61 | | | 2.07 | | | | | |
| TMC2-250A272 | TMC2-250NB272 | TMC2-250SS272 | 2 ½" | - | 1.57 | 2.14 | 2.46 | 2.46 | 2.61 | 2.27 | 2.72 | 2.40 | 3.54 | 3.89 | 4.10 | PVC28 | 24.69 |
| TMC2-300A272 | TMC2-300NB272 | TMC2-300SS272 | - | 3" | 1.63 | 2.14 | 2.46 | 2.46 | 2.61 | | | 2.40 | | | | | |
| TMC2-300A325 | TMC2-300NB325 | TMC2-300SS325 | 3" | - | 1.63 | 2.49 | 2.78 | 2.78 | 2.97 | 2.62 | 3.25 | 2.72 | 4.33 | 4.76 | 4.67 | PVC32 | 42.68 |
| TMC2-350A325 | TMC2-350NB325 | TMC2-350SS325 | - | 3 ½" | 1.69 | 2.49 | 2.78 | 2.78 | 2.97 | | | 2.72 | | | | | |
| TMC2-350A376 | TMC2-350NB376 | TMC2-350SS376 | 3 ½" | - | 1.69 | 2.95 | 3.45 | 3.45 | 3.54 | 3.16 | 3.76 | 3.38 | 4.84 | 5.32 | 4.95 | LSF33 | 53.44 |
| TMC2-400A376 | TMC2-400NB376 | TMC2-400SS376 | - | 4" | 1.73 | 2.95 | 3.45 | 3.45 | 3.54 | | | 3.38 | | | | | |
| TMC2-400A425 | TMC2-400NB425 | TMC2-400SS425 | 4" | - | 1.73 | - | - | 3.56 | 3.94 | 3.70 | 4.25 | 3.59 | 5.23 | 5.75 | 5.16 | LSF34 | 59.19 |
| *Dimensions are displayed in inches unless otherwise stated* | | | | | | | | | | | | | | | | | |
| | | | Metric | Metric | | | | | | | | | | | | | kg |
| TMC2-M20A075 | TMC2-M20NB075 | TMC2-M20SS075 | M20 | - | 15.0 | 10.67 | 13.97 | 13.97 | 16.00 | 12.70 | 19.05 | 13.00 | 30.48 | 33.53 | 61.98 | PVC06 | 0.065 |
| TMC2-M25A075 | TMC2-M25NB075 | TMC2-M25SS075 | - | M25 | 15.0 | 10.67 | 13.97 | 13.97 | 16.00 | | | 13.00 | | | | | |
| TMC2-M20A099 | TMC2-M20NB099 | TMC2-M20SS099 | M20 | - | 15.0 | 15.24 | 16.51 | 16.51 | 22.61 | 17.53 | 25.15 | 15.49 | 37.59 | 41.35 | 75.11 | PVC09 | 0.085 |
| TMC2-M25A099 | TMC2-M25NB099 | TMC2-M25SS099 | - | M25 | 15.0 | 15.24 | 19.81 | 19.81 | 22.61 | | | 19.00 | | | | | |
| TMC2-M25A118 | TMC2-M25NB118 | TMC2-M25SS118 | M25 | - | 15.0 | 20.07 | 21.84 | 21.84 | 27.94 | 22.10 | 29.97 | 20.80 | 45.97 | 50.57 | 80.11 | PVC11 | 0.145 |
| TMC2-M32A118 | TMC2-M32NB118 | TMC2-M32SS118 | - | M32 | 15.0 | 20.07 | 24.89 | 24.89 | 27.94 | | | 24.00 | | | | | |
| TMC2-M32A137 | TMC2-M32NB137 | TMC2-M32SS137 | M32 | - | 15.0 | 23.88 | 27.43 | 27.43 | 32.51 | 25.91 | 34.80 | 26.44 | 52.07 | 57.28 | 90.09 | PVC15 | 0.190 |
| TMC2-M40A137 | TMC2-M40NB137 | TMC2-M40SS137 | - | M40 | 15.0 | 23.88 | 29.97 | 29.97 | 32.51 | | | 28.88 | | | | | |
| TMC2-M40A162 | TMC2-M40NB162 | TMC2-M40SS162 | M40 | - | 15.0 | 30.99 | 34.29 | 34.29 | 38.10 | 33.02 | 41.15 | 33.20 | 59.94 | 65.94 | 91.21 | PVC18 | 0.250 |
| TMC2-M50A162 | TMC2-M50NB162 | TMC2-M50SS162 | - | M50 | 15.0 | 30.99 | 36.07 | 36.07 | 38.10 | | | 34.98 | | | | | |
| TMC2-M40A190 | TMC2-M40NB190 | TMC2-M40SS190 | M40 | - | 15.0 | - | - | 38.35 | 43.69 | 39.88 | 48.26 | 34.80 | 65.02 | 71.53 | 91.11 | PVC37 | 0.268 |
| TMC2-M50A190 | TMC2-M50NB190 | TMC2-M50SS190 | - | M50 | 15.0 | - | - | 38.35 | 43.69 | | | 38.99 | | | | | |
| TMC2-M50A200 | TMC2-M50NB200 | TMC2-M50SS200 | M50 | - | 15.0 | 39.88 | 43.18 | 43.18 | 47.75 | 41.91 | 50.80 | 41.00 | 69.85 | 76.83 | 95.40 | PVC21 | 0.314 |
| TMC2-M63A200 | TMC2-M63NB200 | TMC2-M63SS200 | - | M63 | 15.0 | 39.88 | 43.18 | 43.18 | 47.75 | | | 41.99 | | | | | |
| TMC2-M50A233 | TMC2-M50NB233 | TMC2-M50SS233 | - | M50 | 15.0 | - | - | 45.97 | 56.13 | | | 41.00 | | | | | |
| TMC2-M63A233 | TMC2-M63NB233 | TMC2-M63SS233 | M63 | - | 15.0 | - | - | 45.97 | 56.13 | 48.51 | 59.18 | 51.49 | 74.93 | 82.42 | 100.89 | PVC23 | 0.362 |
| TMC2-M75A233 | TMC2-M75NB233 | TMC2-M75SS233 | - | M75 | 15.0 | - | - | 45.97 | 56.13 | | | 51.49 | | | | | |
| TMC2-M63A272 | TMC2-M63NB272 | TMC2-M63SS272 | - | M63 | 15.0 | 54.36 | 62.48 | 55.12 | 66.29 | | | 52.53 | | | | | |
| TMC2-M75A272 | TMC2-M75NB272 | TMC2-M75SS272 | M75 | - | 15.0 | 54.36 | 62.48 | 62.48 | 66.29 | 57.66 | 69.09 | 60.99 | 89.92 | 98.91 | 104.09 | PVC28 | 0.700 |
| TMC2-M90A272 | TMC2-M90NB272 | TMC2-M90SS272 | - | M90 | 24.0 | 54.36 | 62.48 | 62.48 | 66.29 | | | 60.99 | | | | | |
| TMC2-M90A325 | TMC2-M90NB325 | TMC2-M90SS325 | M90 | - | 24.0 | 63.25 | 70.61 | 70.61 | 75.44 | 66.55 | 82.55 | 68.96 | 109.98 | 120.98 | 118.49 | PVC32 | 1.210 |
| TMC2-M100A325 | TMC2-M100NB325 | TMC2-M100SS325 | - | M100 | 24.0 | 63.25 | 70.61 | 70.61 | 75.44 | | | 68.96 | | | | | |
| TMC2-M100A376 | TMC2-M100NB376 | TMC2-M100SS376 | M100 | - | 24.0 | 74.93 | 87.63 | 87.63 | 89.92 | 80.26 | 95.50 | 85.95 | 122.94 | 135.23 | 125.81 | LSF33 | 1.515 |
| TMC2-M115A376 | TMC2-M115NB376 | TMC2-M115SS376 | - | M115 | 24.0 | 74.93 | 87.63 | 87.63 | 89.92 | | | 85.95 | | | | | |
| TMC2-M115A425 | TMC2-M115NB425 | TMC2-M115SS425 | M115 | - | 24.0 | - | - | 90.42 | 100.08 | 93.98 | 107.95 | 91.26 | 132.84 | 146.13 | 131.09 | LSF34 | 1.678 |
| *METRIC Dimensions above are displayed in millimetres unless otherwise stated* | | | | | | | | | | | | | | | | | |

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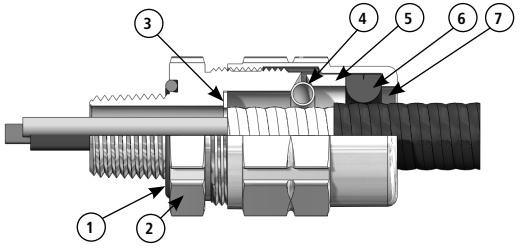
| FI410 | | |
|---|---|---|
| Certificate | Revision | Date |
| UKEX | 0 | 04/21 |
| IFS | 17 | 03/24 |
| ATEX / IECEx | - | - |
| CSA / cCSAus | - | - |

# INSTALLATION INSTRUCTIONS FOR CMP TMC2

**CABLE GLAND COMPONENTS - It is not necessary to dismantle the cable gland any further than illustrated below**

1. Face Seal
2. Entry Component
3. End Stop
4. Grounding Spring
5. Angled Spacer
6. Jacket Seal
7. Outer Nut

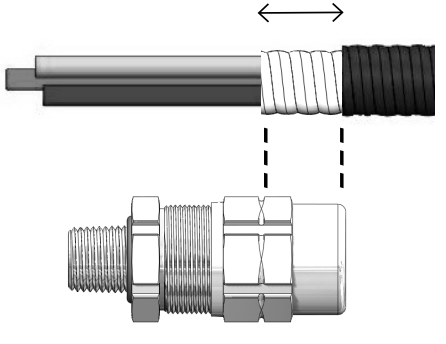



**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION**

1. Cable preparation. Strip back the jacket and armor to suit the equipment geometry.

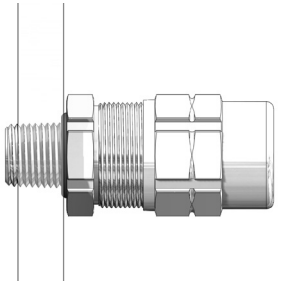
2. Using the armor measure guide, expose the armor further by stripping back the cable jacket.

**Cut Outer Jacket to Length**
Length = Groove in hexagon to rear of Outer Nut

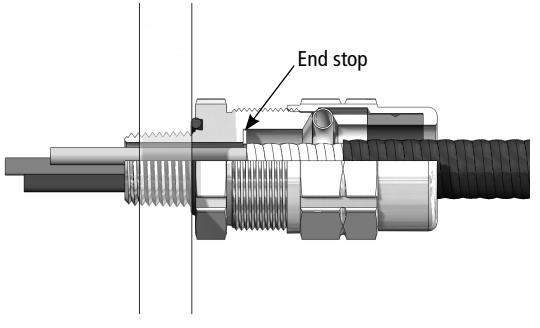


**NOTE: When the outer jacket is at its maximum, cut distance may have to be increased by up to 10%.**

3. Screw the gland into the equipment, or if it is fitted into a clearance hole, secure with a locknut. Loosen the outer nut to ensure that the Grounding Spring (4) and the Jacket Seal (6) are in a relaxed state. IT IS NOT NECESSARY TO SEPARATE THE GLAND COMPONENTS.

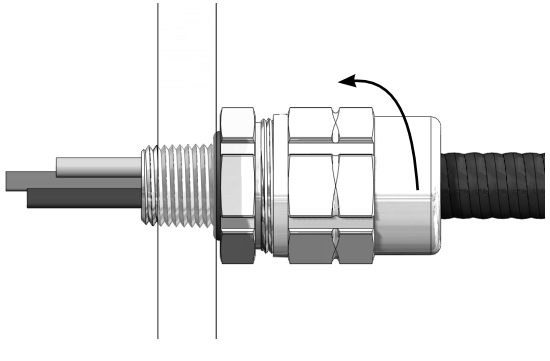


4. Pass the cable through the gland until the armor makes contact with the end stop. If it is not possible for the conductors to pass through the end stop then it should be removed so that the armor can make contact with the integral end stop within the entry component.




5. Finally, tighten the Outer Nut (7) to compress the Grounding Spring (4) to secure the armor, and also to compress the Jacket Seal (6) onto the cable jacket. Do not over-tighten. The Entry Component (2) and the Outer Nut (7) do not have to close face to face.

THIS COMPLETES THE TERMINATION

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