

TMC

Class I / II / III, Div. 2; Class I Zone 1, AEx e/ Ex e

Zone 21 AEx tb / Ex tb; Class 1 Zone 2 AEx nR / Ex nR

Ex e / Ex ta / Ex nR, IP 66/67/68 (Metric), IP65 (NPT); Type 4X

CABLE CONNECTOR FOR USE WITH MC, MC-HL OR TECK CABLES.



Features and Benefits

- For use in ordinary, wet and hazardous locations.
- Available with NPT or metric threads.
- Glands with metric threads are supplied with a sealing gasket as standard.

Technical Data

Type:	TMC
Gland Material:	Aluminium, Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel
Sealing Material:	EPDM or Silicone
Sealing Gasket Material:	HDPE, Nylon 66 or PTFE (Selected according to the temperature range required)
Cable Type:	MC, MC-HL, Teck Cable
Optional Accessories:	Earth tag, Serrated washer, Locknut
Note:	The installer should check that the materials are suitable for the installation environment

Temperature Range

When fitted with sealing gaskets the temperature range for the gland will be:-

Sealing Gasket Material	Temperature range
HDPE	-60°C to +95°C
Nylon	-60°C to +100°C
PTFE	-60°C to +160°C

Certification Details

Equipment Protection Levels:	NEC/CEC: Class I Div2 Gr ABCD, Class II Div 2 Gr FG Class III Div 2 Class I Zone 1 AEx eb IIC Gb / Ex eb IIC Gb, Zone 20 AEx tb IIIC Db / Ex tb IIIC Db Class I Zone 2 AEx nR IIC Gc / Ex nR IIC Gc, IP66/67/68, Type 4X IECEx/INMETRO: Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc ATEX/UKEX: Ⓢ II 2/3G 1D, Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc	
Conformance:	Standard:	Certificate:
CEC	CSA C22.2 No. 18.3-12, 174:2018 & 213:2017	E115595
NEC	UL514B, UL121201 UL 60079 - 0, 7, 15, 31	
IECEX	IEC 60079 - 0, 7, 15, 31	IECEX CML 18.0018X
ATEX	EN 60079 - 0, 7, 31	CML 16ATEX1001X
UKEX	BS EN 60079 Parts 0, 7, 31	CML 21UKEX1011X
	BS EN 60079-15	CML16UKEX4006X
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 7, 15, 31	TUV 15.0483X
SANS	SANS/IEC 60079 Part 0, 1, 7, 15, 31	MASC MS/22-9001X
IP66/67/68 (850m) - Metric	IEC60529	CML 15Y728
IP65/66 - NPT	IEC 60529	
IP68 - Tapered and approved grease	IEC 60529	IECEX CML 18.0018X
Nema Type 4X	NEMA 250	E115595
EMC Compatible	EN 55011, + A1, EN 55022	SGS EMC305079/1



Installation Requirements / Specific Conditions of Use

- The cable glands shall only be used if the temperature, at the point of entry, is as specified above.

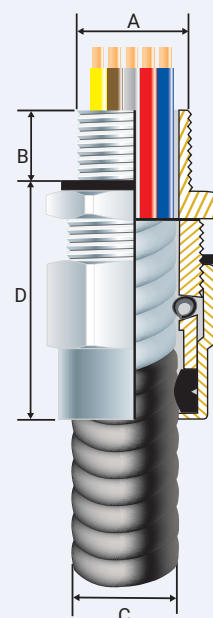
NPT Entry Thread

Model	Product Code	NPT Thread 'A'	Thread Length 'B'	Cable Armour		Cable Jacket		Max Length 'D'	Hexagon		Jacket Strip Length
				Min	Max	Min 'C'	Max 'C'		A/F	A/C	
TMC050A00	059500-012NPT-A	½"	0.782	0.311	0.512	0.354	0.530	2.283	1.063	1.161	1.102
TMC050A-0	0595-0-012NPT-A	½"	0.782	0.421	0.630	0.500	0.748	2.677	1.259	1.417	1.299
TMC075A-0	0595-0-034NPT-A	¾"	0.794	0.421	0.630	0.500	0.748	2.677	1.259	1.417	1.299
TMC050A01	059501-012NPT-A	½"	0.782	0.586	0.890	0.690	0.983	2.913	1.574	1.771	1.495
TMC075A01	059501-034NPT-A	¾"	0.794	0.586	0.890	0.690	0.983	2.913	1.574	1.771	1.495
TMC075A02	059502-034NPT-A	¾"	0.794	0.791	1.100	0.870	1.180	3.031	1.771	1.991	1.574
TMC100A02	059502-001NPT-A	1"	0.985	0.791	1.100	0.870	1.180	3.031	1.771	1.991	1.574
TMC100A03	059503-001NPT-A	1"	0.985	0.936	1.260	1.020	1.360	3.307	2.046	2.302	1.692
TMC125A03	059503-114NPT-A	1¼"	1.009	0.936	1.260	1.020	1.360	3.307	2.046	2.302	1.692
TMC125A04	059504-114NPT-A	1¼"	1.009	1.220	1.500	1.300	1.585	3.346	2.165	2.436	1.692
TMC150A04	059504-112NPT-A	1½"	1.025	1.220	1.500	1.300	1.585	3.346	2.165	2.436	1.692
TMC150A05	059505-112NPT-A	1½"	1.009	1.488	1.771	1.570	1.870	4.016	2.558	2.877	1.771
TMC200A05	059505-002NPT-A	2"	1.025	1.488	1.771	1.570	1.870	4.016	2.558	2.877	1.771
TMC200A06	059506-002NPT-A	2"	1.058	1.570	1.880	1.650	2.000	4.370	2.755	3.101	2.046
TMC200A07	059507-002NPT-A	2"	1.058	1.719	2.223	1.910	2.330	4.646	3.148	3.542	2.204
TMC250A07	059507-212NPT-A	2½"	1.571	1.719	2.223	1.910	2.330	4.646	3.148	3.542	2.204
TMC250A08	059508-212NPT-A	2½"	1.571	2.140	2.610	2.270	2.722	5.079	3.778	4.250	2.597
TMC300A08	059508-003NPT-A	3"	1.634	2.140	2.610	2.270	2.722	5.079	3.778	4.250	2.597
TMC300A09	059509-003NPT-A	3"	1.634	2.490	2.970	2.620	3.188	5.394	4.368	4.919	2.715
TMC350A09	059509-312NPT-A	3½"	1.684	2.490	2.970	2.620	3.188	5.394	4.368	4.919	2.715
TMC350A10	059510-312NPT-A	3½"	1.684	2.950	3.540	3.160	3.760	6.024	4.919	5.549	3.188
TMC400A10	059510-004NPT-A	4"	1.734	2.950	3.540	3.160	3.760	6.024	4.919	5.549	3.188
TMC400A11	059511-004NPT-A	4"	1.734	3.636	4.030	3.700	4.250	5.906	5.313	5.982	3.188

Dimensions are in inches. Note tightening torque for NPT threads is 'wrench tight'.

CCG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCG for assistance.

TMC_GH010624NA



NPT / Metric Entry Thread

Metric Entry Thread

Model	Product Code	Thread 'A'	Thread Length 'B'	Cable Armour		Cable Jacket		Max. Length 'D'	Hexagon		Jacket Strip Length	Tightening Torque Nm/lb ft
				Min	Max	Min 'C'	Max 'C'		A/F	A/C		
TMCM20A00	059500-A	M20x1.5	0.590	0.311	0.512	0.354	0.530	2.283	1.063	1.161	1.102	21/15
TMCM20A-0	05950-A	M20x1.5	0.590	0.421	0.630	0.500	0.748	2.677	1.259	1.417	1.299	21/15
TMCM20A01	059501-A	M20x1.5	0.590	0.586	0.890	0.690	0.983	2.913	1.574	1.771	1.495	21/15
TMCM25A02	059502-A	M25x1.5	0.590	0.791	1.100	0.870	1.180	3.031	1.771	1.991	1.574	30/22
TMCM32A03	059503-A	M32x1.5	0.590	0.936	1.260	1.020	1.360	3.307	2.046	2.302	1.692	42/31
TMCM40A04	059504-A	M40x1.5	0.590	1.220	1.500	1.300	1.585	3.346	2.165	2.436	1.692	52/38
TMCM50A05	059505-A	M50x1.5	0.590	1.488	1.771	1.570	1.870	4.016	2.558	2.877	1.771	57/42
TMCM63A06	059506-A	M63x1.5	0.590	1.570	1.880	1.650	2.000	4.370	2.755	3.101	2.046	66/49
TMCM75A07	059507-A	M75x1.5	0.590	1.719	2.223	1.910	2.330	4.646	3.148	3.542	2.204	72/53
TMCM80A08	059508-A	M80x2.0	0.787	2.140	2.610	2.270	2.722	5.079	3.778	4.250	2.597	80/59
TMCM90A09	059509-A	M90x2.0	0.787	2.490	2.970	2.620	3.188	5.394	4.368	4.919	2.715	89/66
TMCM100A10	059510-A	M100x2.0	0.787	2.950	3.540	3.160	3.760	6.024	4.919	5.549	3.188	98/72
TMCM110A11	059511-A	M110x2.0	0.787	3.636	4.030	3.700	4.250	5.906	5.313	5.982	3.188	175/129

Dimensions are in inches.

FITTING INSTRUCTION

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness < Ra 6.3 µm.
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

MUST HAVE THREADED ENTRIES

- The same thread size as the cable gland. (Thread adapters should be used to

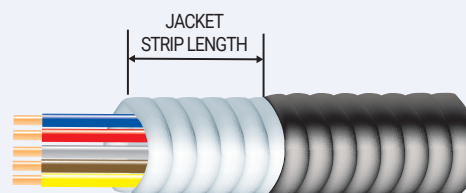
correct any mismatch).

- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)

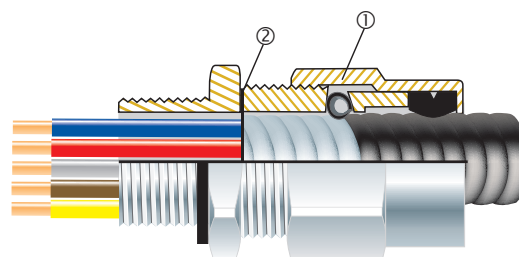
- 1 Prepare the cable by cutting the jacket and armour to suit the Installation. Strip the jacket back a further distance as shown in the tables above. Cut any fillers or sheath around the cores flush with the end of the armour.



2. Secure the TMC connector to the equipment either by screwing it into a threaded entry or by securing it in a clearance hole using a locknut. To maintain IP66/68 ensure that the thread gasket is in place for metric entry threads and tighten to the torque levels shown in the table above.

If the gland has NPT entry threads then IP68 (2m) can be achieved by applying one of the following tested and approved grease types to the thread and tightening the thread 'wrench tight':- Renolit Lubrene CA700 or LX220 EP2, Renolit LC-WP2 or Moly LX2, or Dow Corning 4 Electrical Compound.

3. Slacken the body ① to relax the internal spring and rubber seal. DO NOT fully unscrew the body.
4. Introduce the cable into the connector and push it forward until the cable armour contacts the end stop ②. (If it is not possible to pass the cable cores through the bore of the plastic end stop then remove the end stop from the connector as it is not needed for that cable size. The cable armour will then contact a step within the connector entry item.)



5. Tighten the body ① to close down the earthing spring onto the cable armour. Continue tightening until the outer seal contacts the jacket and then tighten the body one more full turn. This completes the installation.

