



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX CML 19.0062X** Page 1 of 4 [Certificate history:](#)  
Status: **Current** Issue No: 2 [Issue 1 \(2019-11-14\)](#)  
[Issue 0 \(2019-08-02\)](#)  
Date of Issue: 2020-07-08  
Applicant: **CMP Products Ltd**  
Glasshouse Street, St Peters, Newcastle upon Tyne, NE16 1BS  
**United Kingdom**  
Equipment: **TruSeal Range of Cable Glands and Plugs**  
Optional accessory:  
Type of Protection: **Increased Safety "eb", Restricted Breathing "nR", Dust Ignition "ta"**  
Marking: Ex eb IIC Gb  
Ex ta IIIC Da  
Ex nR IIC Gc  
-60°C ≤ Ta ≤ +105°C (TSM<sub>e</sub>, TSX<sub>e</sub> & TSZ<sub>e</sub> glands and TruSeal Plug)  
-60°C ≤ Ta ≤ +95°C (TSP<sub>e</sub> & TSP<sub>i</sub> glands)  
IP66 IP67 IP68 (30 m for 16 hours)  
IP69 IP69K

Approved for issue on behalf of the IECEx  
Certification Body:

**R C Marshall**

Position:

**Certification Officer**

Signature:  
(for printed version)

Date:

2020-07-08

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Certificate issued by:

**Eurofins E&E CML 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  
locations:

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 equipment 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** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-15:2017** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

This Certificate **does not** indicate compliance with 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 Reports:

[GB/CML/ExTR19.0084/00](#)  
[GB/CML/ExTR20.0086/00](#)

[GB/CML/ExTR19.0236/00](#)

[GB/CML/ExTR19.0239/00](#)

Quality Assessment Report:

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



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The TruSeal Range of Cable Glands comprises the TSMe, TSPe, TSPi, TSXe & TSZe models which allow circular unarmoured cable or braided/screened cable to enter associated enclosures to which they are fitted (as defined by their coding) without compromising the explosion protection that it provides. The TruSeal Plug is to be fitted within a TruSeal Gland to provide additional IP rating when the gland is not in use.

Refer to Annex for full description.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

Refer to Annex for specific conditions of use.



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### **Issue 1**

This issue introduced the following change:

1. The introduction of a slotted entry thread variant to the TSMe models to facilitate a braid termination using a locknut.

### **Issue 2**

This issue introduced the followings changes:

1. Introduction of theTruSeal Plug Models.
2. Approval of IPX9 and IPX9(K) rating of the TruSeal Range of Cable Glands
3. Update of standard reference from IEC 60079-15:2010 Ed. 4 to IEC 60079-15:2017 Ed. 5
4. Minor Drawing Clarifications
5. Updated ExTR reference from GB/CML/ExTR19.0147/00 to GB/CML/ExTR19.0239/00

### **Annex:**

[IECEX CML 19.0062X Iss. 2 Certificate Annex\\_1.pdf](#)

**Annexe to:** IECEx CML 19.0062X Issue 2  
**Applicant:** CMP Products Ltd  
**Apparatus:** TruSeal Range of Cable Glands and Plugs



## Description

The TruSeal Range of Cable Glands comprises the TSM<sub>e</sub>, TSP<sub>e</sub>, TSP<sub>i</sub>, TSX<sub>e</sub> & TSZ<sub>e</sub> models which allow circular unarmoured cable or braided/screened cable to enter associated enclosures to which they are fitted (as defined by their coding) without compromising the explosion protection that it provides. Alternatively, a TruSeal Plug can be used within one of the TruSeal Gland models above to provide Ingress Protection where the cable gland is not required. They are manufactured from the following component parts:

### TSM<sub>e</sub> models

- Metallic entry item hexagonal in form which is threaded at both ends: one being a male metric or NPT thread used to secure the entry item to the associated enclosure; the other being for the fitting of the outer seal nut.
- Plastic finger insert which is located within the entry item which, when displaced by tightening the outer seal nut displaces the sealing ring(s).
- Elastomeric sealing rings which may be: single; dual inner; dual outer which, when displaced by the outer seal nut and finger insert secures the incoming cable, along with providing 'sealing' and ingress protection.
- Outer seal nut, domed in form with a hexagonal shoulder towards its base and with a female thread which engages with the entry item and upon tightening displaces the finger insert and consequently sealing ring(s) onto the cable.

### TSX<sub>e</sub> models

- As the TSM<sub>e</sub> models with the following additional parts:
- Metallic EMC cone and ring which are located within the entry item to accommodate the screen or braid of the incoming cable.
- Elastomeric bore seal located between the EMC ring and finger insert.

### TSZ<sub>e</sub> models

As the TSM<sub>e</sub> models with the following additional part:

- Metallic EMC spring insert located between the finger insert and entry item for the attenuation of electrical interference.

### TSP<sub>e</sub> & TSP<sub>i</sub> models

- Plastic entry item hexagonal in form which is threaded at one end with a male metric or NPT thread used to secure the entry item to the associated enclosure; the other being partially threaded for the fitting of the outer seal nut and which has a moulded finger insert feature which, when displaced by the outer seal nut displaces the sealing ring(s).

Unit 1, Newport Business Park  
New Port Road  
Ellesmere Port  
CH65 4LZ

**T** +44 (0) 151 559 1160  
**E** [info@cmllex.com](mailto:info@cmllex.com)

**[www.cmllex.com](http://www.cmllex.com)**

Company Reg No. 8554022 VAT No. GB163023642



- Elastomeric sealing rings which may be: single; dual inner; dual outer which, when displaced by the outer seal nut and finger insert secures the incoming cable, along with providing 'sealing' and ingress protection.
- Outer seal nut, hexagonal in form with a female thread which engages with the entry item and upon tightening displaces the fingered feature and consequently sealing ring(s) onto the cable.

The cable gland and sealing ring sizes are determined by the entry thread and cable range take sizes:

Gland Size	Entry Thread		Cable outer sheath Ø					
	Standard (Metric)	Standard (NPT)	Single Seal (Min.)	Single Seal (Max.)	Dual Inner (Min.)	Dual Inner (Max.)	Dual Outer (Min.)	Dual Outer (Max.)
12	M12x1.5	1/4"	3.0	6.5	-	-	-	-
16	M16x1.5	3/8"	3.0	7.0	3.0*	7.0	6.0	10.0
20	M20x1.5	1/2"	5.0	10.0	5.0**	10.0	9.0	14.0
25	M25x1.5	3/4"	9.0	15.5	9.0	15.5	12.5	18.0
32	M32x1.5	1"	12.5	19.0	12.5	19.0	17.0	25.0
40	M40x1.5	1 1/2"	19.0	27.0	19.0	27.0	24.0	32.0
50	M50x1.5	2"	22.0	32.0	22.0	32.0	28.0	38.0
63	M63x1.5	2 1/2"	28.0	39.0	28.0	39.0	37.0	48.0

All cable outer sheath dimensions in mm

\* For the TSPe & TSPi size 16 gland, the minimum dual inner cable outer sheath dimension is 3.2 mm

\*\* For the TSPe & TSPi size 20 gland, the minimum dual inner cable outer sheath dimension is 5.5 mm

### Design Options

The front threaded entry item may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face of the associated enclosure.

The front threaded entry item may be manufactured with any larger entry thread form size from the sizes certified.

The front threaded entry item may be manufactured with an alternative nearest equivalent recognised thread type and size to the metric thread sizes certified.

The TruSeal Range of Cable Glands may be supplied with a Transit Disc.

### Materials of manufacture:

The TSMe, TSZe & TSXe Cable Gland ranges are manufactured in brass, stainless steel & mild steel. All brass manufactured component parts can be optionally nickel plated. All mild steel manufactured components can be optionally zinc plated.

The TSPe & TSPi Cable Gland ranges are manufactured in polyamide.

The TruSeal Plug is manufactured in a Silicone Rubber.

**Examples of alternative entry component thread forms:**

ET (Conduit)  
 PG  
 BSPP  
 BSPT  
 ISO  
 NPSM  
 NPT

**TruSeal Plug Models**

There are three model types (A, B and C), that are suitable for the different sealing arrangements within the cable gland range, shown in the table below;

Gland Size	TruSeal Plug Model
12	A
16S / 16DI	B
16	C
20S / 20DI	B
20	C
25S / 25DI	B
25	C
32S / 32DI	B
32	C
40S / 40DI	B
40	C
50S / 50DI	B
50	C
63S / 63DI	B
63	C



## Conditions of Manufacture

None.

## Specific Conditions of Use (Special Conditions)

The following are Specific Conditions of Use.

- i. The TruSeal TSPe & TSPi M12 & M16 Cable Glands have been tested to a mechanical impact of 4 J and therefore shall only be installed where the risk of mechanical impact is low.
- ii. The TruSeal Range of Cable Glands are only suitable for fixed installations. The end user shall provide suitable additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
- iii. When a TruSeal M12 TSPe Cable Gland is installed where its service temperature exceeds +75°C, it shall be mounted such that it is adequately protected against the risk of mechanical impact.
- iv. For TSPe & TSPi sizes M40, M50 & M63 - Under certain extreme circumstances may be a potential electrostatic charging hazard, clean only with a damp cloth.