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 18.0183X

Issue No: 0

Certificate history:
Issue No. 0 (2019-03-26)

Status: **Current**

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

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

Equipment: **Cable Gland Types Triton T3** and TE****

Optional accessory:

Type of Protection: **Flameproof "db", Increased Safety "eb", Equipment by type of protection "nR", Dust Ignition "ta"**

Marking:

Ex db I Mb

Ex eb I Mb

Ex db IIC Gb

Ex eb IIC Gb

Ex nR IIC Gc

Ex ta IIIC Da

Ta= -60°C to +130°C (standard seal) / -20°C to +200°C (high temperature seal)

Approved for issue on behalf of the IECEx Certification Body: R C Marshall

Position: Certification Officer

Signature:
(for printed version)

Date: 2019-03-26

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.

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 60079-15 : 2017 Edition:5.0	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
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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Certificate No: IECEx CML 18.0183X Issue No: 0

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Triton T3CDS series is a range of displacement type cable glands, each comprises of a hollow threaded entry component containing an elastomeric compensating displacement seal (CDS) system with associated ferrule, a skid washer, flameproof sealing ring with compensator, a reversible clamping sleeve and armour cone are provided for termination of various armour types.

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 18.0183X Iss. 0 Certificate Annex.pdf

Annexe to:	**IECEx CML 18.0183X Iss. 0**
Applicant:	**CMP Products Ltd**
Apparatus:	**Cable Gland Types Triton T3** and TE****

Description

The Triton T3CDS series is a range of displacement type cable glands, each comprises of a hollow threaded entry component containing an elastomeric compensating displacement seal (CDS) system with associated ferrule, a skid washer, flameproof sealing ring with compensator, a reversible clamping sleeve and armour cone are provided for termination of various armour types. The flameproof sealing assembly is actuated by an inner seal nut. The entry component is fitted with an O-ring seal to provide increased ingress and deluge protection. Clamping of the armoured or braided cable is affected by a combination of the entry component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath. The glands are intended for use with appropriately sized SWA, P.W.A., strip armoured, tape armoured or braided cables. The design is such that a constant pressure is maintained on the displacement seal by the use of the compensation ferrule.

T3CDS series suffixed 'R' or alternatively named TE1FU series – Identical to the above but incorporating an external shorter gland body to provide a reduced overall length.

T3CDS/PB - Identical to the T3CDS Type but incorporating a continuity washer and are suitable for use with lead sheathed cables.

Design Options

The front entry component may be manufactured with a profiled groove to captivate an O-ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RT3CDS.

Materials of manufacture:

The standard material supplied is:

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

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)
Aluminium	BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 / BS EN 1676:2010 Grade LM25 TF Not for use with Group I mining Aluminium will contain less than 6% magnesium

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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

The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.

The option to have an alternative entry component profile that incorporates an earth lug.

Single or double-sided cone with an identically dimensioned plain taper each side for SWA type cables.

Single or double-sided cone with an identically dimensioned grooved taper each side for SWA, P.W.A., strip armoured, tape armoured or braided type cables.

Cable glands may be fitted with armour cones with alternative diameters to allow the clamping of smaller or larger armour wires and braided cables.

The use of seals suitable for flat form cables

Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.

The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked ‘Ex e only’ to indicate that the gland is not suitable for Ex d applications when the disc is fitted.

Type designation:

T3CDS * ***

PB	Alternative cone assembly incorporating an additional metallic continuity diaphragm for the use with inner lead sheathed SWA and braided cables
VAR	Optional metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables
FF	Fitted with seals suitable for use with flat form cables
"Blank"	Standard gland arrangement with reversible armour cone
W	Fitted with single plain armour cone to suit S.W.A. cables
X	Fitted with single grooved armour cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables
R	Alternative type number to the TE1FU types
L	Longer intermediate body

TE 1 F * ** ***

VAR	Optional metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables
FF	Fitted with seals suitable for use with flat form cables
"Blank"	Standard gland arrangement with reversible armour cone
PB	Fitted with additional metallic continuity diaphragm for use with inner lead sheathed S.W.A., strip armoured and braided cables.
W	Fitted with single plain armour cone to suit S.W.A. cables
X	Fitted with single grooved armour cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables
U	Fitted with a universal cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables

The gland and seal sizes are determined by the entry thread and cable range-take sizes:

Gland size	Entry thread	Entry thread 'B' version	Inner seal sheath range Ø (mm)		SWA, STA, strip armour, pliable wire armour & wire braid (mm)		SWA (mm)		Outer seal sheath range Ø (mm)	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	M16x1.5	---	3.1	8.7	0	0.8	0.8	1.25	6.1	13.2
20S16	M20x1.5	M25x1.5	3.1	8.7	0	0.8	0.8	1.25	6.1	13.2
20S16/20S	M20x1.5	M25x1.5	3.1	8.7	0	0.8	0.8	1.25	9.5	15.9
20S	M20x1.5	M25x1.5	6.1	11.7	0	0.8	0.8	1.25	9.5	15.9
20	M20x1.5	M25x1.5	6.5	14.0	0	0.8	0.8	1.25	12.5	20.9
25S	M25x1.5	M32x1.5	11.1	20.0	0	1.1	1.25	1.6	14.0	22.0
25	M25x1.5	M32x1.5	11.1	20.0	0	1.1	1.25	1.6	18.2	26.2
32	M32x1.5	M40x1.5	17.0	26.3	0	1.2	1.6	2.0	23.7	33.9
40	M40x1.5	M50x1.5	22.0	32.2	0	1.2	1.6	2.0	27.9	40.4
50S	M50x1.5	M63x1.5	29.5	38.2	0	1.5	2.0	2.5	35.2	46.7
50	M50x1.5	M63x1.5	35.6	44.1	0	1.5	2.0	2.5	40.4	53.1
63S	M63x1.5	M75x1.5	40.1	50.0	0	1.5	2.0	2.5	45.6	59.4
63	M63x1.5	M75x1.5	47.2	56.0	0	1.5	2.0	2.5	54.6	65.9
75S	M75x1.5	M90x2.0	52.8	62.0	0	1.5	2.5	3.0	59.0	72.1
75	M75x1.5	M90x2.0	59.1	68.0	0	1.6	2.5	3.0	66.7	78.5
90	M90x2.0	M100x2.0	66.6	80.0	0	1.6	3.15	4.0	76.2	90.4
100	M100x2.0	M115x2.0	76.0	91.0	0	1.6	3.15	4.0	86.1	101.5
115	M115x2.0	M130x2.0	86.0	98.0	0	1.6	3.15	4.0	101.5	110.3
130	M130x2.0	---	97.0	115.0	0	1.6	3.15	4.0	110.2	123.3

T3 series suffixed 'FF' or TE series suffixed 'FF' in these sizes only.

Gland size	Entry thread	Entry thread 'B' version	Cable inner seal sheath range (mm)		Cable outer seal sheath range (mm)	
			Min.	Max.	Min.	Max.
20s	M20x1.5	M25x1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20x1.5	M25x1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

T3CDSL series which includes the longer intermediate body are determined by the entry thread and cable range-take sizes:

Gland size	Entry thread	Entry thread 'B' version	Inner seal sheath range Ø (mm)		SWA, STA, strip armour, pliable wire armour & wire braid (mm)		SWA (mm)		Outer seal sheath range Ø (mm)	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
63	M63x1.5	---	47.2	56.0	0	1.5	2.0	2.5	54.6	65.9

Notes:

- Sira 13ATEX1073X, Sira 13ATEX4079X and IECEx SIR 13.0028X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 13ATEX1073X, Sira 13ATEX4079X and IECEx SIR 13.0028X.
- Where Sira 13ATEX1073X, Sira 13ATEX4079X and/or IECEx SIR 13.0028X 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

None.

Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. When the cable glands are supplied with an entry thread that is one size up from the nominal gland size, designated with the letter 'B' after the gland size, e.g. 32B****, they shall not be used with any adaptor device.
ii. The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
iii. When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent pulling or twisting.
iv. The T3** and TE** Type cable glands shall not be used to terminate on braided cables in Group I applications.