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 SIR 13.0028X issue No.:4

Status: **Current**

Date of Issue: **2016-02-04** Page 1 of 4

Certificate history:
Issue No. 4 (2016-2-4)
Issue No. 3 (2015-6-17)
Issue No. 2 (2014-9-29)
Issue No. 1 (2013-7-3)
Issue No. 0 (2013-5-3)

Applicant:
CMP Products Ltd
Glasshouse Street
St Peters
Newcastle upon Tyne NE6 1BS
United Kingdom

Electrical Apparatus: **Cable Gland Types Triton T3** and TE****
Optional accessory:

Type of Protection: **Flameproof, Increased Safety, Restricted Breathing and Dust Protection by Enclosure**

Marking:
Ex e I Mb
Ex d I Mb
Ex e IIC Gb
Ex d IIC Gb
Ex nR IIC Gc
Ex ta IIIC Da
Ta = -60°C to +130°C (When fitted with the standard seal)
Ta = -20°C to +200°C (When fitted with the high temperature seal)

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

Position: Deputy Certification Manager

Signature: (for printed version)

Date: 2016-02-04

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:
SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden
Deeside
CH5 3US
United Kingdom

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Manufacturer: **CMP Products Ltd**
Glasshouse Street
St Peters
Newcastle upon Tyne NE6 1BS
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 electrical 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	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/SIR/ExTR13.0066/00 GB/SIR/ExTR14.0162/00 GB/SIR/ExTR16.0018/00

Quality Assessment Report:

GB/SIR/QAR07.0009/04

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

These devices are a range of displacement type cable glands, a full description is given in the Certificate Annexe.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The T3** and TE** Type cable glands shall not be used to terminate on braided cables in Equipment Protection Level Mb applications.
2. The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
3. 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. 32**B****, they shall not be used with any adaptor device.
4. When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 to Issue 3 – for changes refer to Issue 3

Issue4– this Issue introduced the following changes:

1 The introduction of a version of the brass, size 63 gland that has a longer intermediate body; this version is recognised as the T3CDSL__. The gland and seal sizes are determined by the entry thread and cable range-take sizes, as detailed below:

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	N/A	47.2	56.0	0	1.5	2.0	2.5	54.6	65.9

2. Extra information was added to the General Arrangement drawing; this does not affect the product design and has been included to clarify the construction/range taking capability of the glands and to correct oversights.

Annex: IECEx SIR 13.0028X Annexe Iss 4.pdf

Annexe to:	**IECEx SIR 13.0028X Issue 4**
Applicant:	**CMP Products Ltd**
Apparatus:	**Cable Gland Types Triton T3CDS and TE1FU**

T3CDS – 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 effected 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:
  Brass to EN12168:1998 Grade CuZn39Pb (CW614N)
  Mild steel to BS EN 10088-3:2005 Grade 220M07Pb
  Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33
  Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)
- Alternative entry component thread forms:

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
ISO	ISO 7/1:1982, 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

- 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.

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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 SWA cables.

X = Fitted with single grooved armour cone to suit SWA, STA, strip armoured, pliable wire armoured andbraided cables.

R = Alternative type number to the TE1FU types.

TE 1 F__ PB __

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 circular armoured and braided cables.

PB = Fitted with additional metallic continuity diaphragm for the use with inner lead sheathed SWA, strip armoured and braided cables.

W = Fitted with single plain armour cone to suit SWA cables.

X = Fitted with single grooved armour cone to suit SWA, STA, strip armoured, pliable wire armoured and braided cables.

U = Fitted with a universal cone to suit SWA, STA, strip armoured, pliable wire armoured and braided cables.

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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	M20 x 1.5	M25 x 1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20 x 1.5	M25 x 1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

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