



## Type Examination Certificate CML

CML 18ATEX4318X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment Cable Gland Types Triton T3\*\* and TE\*\*

3 Manufacturer CMP Products Ltd

4 Address Unit 36 Nelson Way,

Nelson Park East,

Cramlington, NE23 1WH,

**United Kingdom** 

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of certification (affecting correct installation or safe use). These are specified in Section 14.
- This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2018

IEC 60079-15:2017

10 The equipment shall be marked with the following:



Ex nR IIC Gc

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

> R C Marshall Certification Officer

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## 11 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





## Alternative entry component thread forms:

Metric	ISO 965-1, ISO 965-3 medium fit (6g) for external threads				
ET (Conduit)	S31:1940 (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

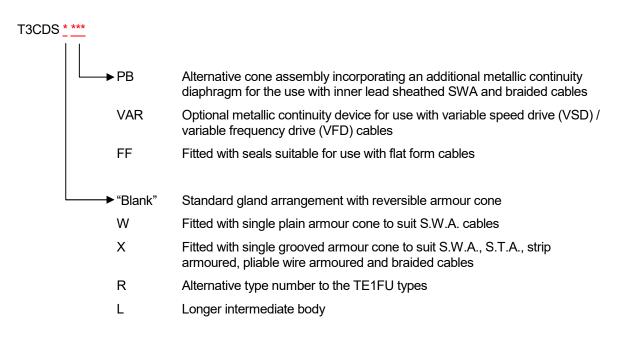
Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.

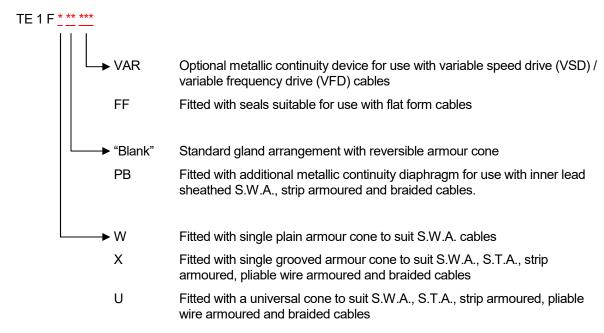
The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked 'Ex e only' to indicate that the gland is not suitable for Ex d applications when the disc is fitted.





## Type designation:









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	8.0	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'		al sheath range m)	Cable outer sea		
		version	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)		(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.

## 12 Certificate history and evaluation Reports

Issue	Date	Associated report	Notes
0	26 Mar 2019	R12060G/00	Issue of Prime Certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

#### 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

None.

#### 14 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.

# **Certificate Annex**



Certificate Number CML 18ATEX4318X

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

Manufacturer CMP Products Ltd

The following documents describe the equipment or component defined in this certificate:

## Issue 0

Drawing No	Sheets	Rev	Approved date	Title
GA356	1 of 1	03	26 Mar 2019	TE1FU General arrangement and marking
GA357	1 of 1	05	26 Mar 2019	Triton T3CDS General arrangement and marking
SCH0322	1 of 1	01	26 Mar 2019	Outer seal details
SCH0323	1 of 1	01	26 Mar 2019	Armour clamp details
SCH0328	1 of 1	01	26 Mar 2019	CDS Armour clamp details
CMP36725	1 of 1	00	26 Mar 2019	63 T3CDSL Intermediate body