



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX1283X** Issue: **5**

4 Equipment: **Type T3CDS, T3CDS/PB and TE1F\* Cable Glands**

5 Applicant: **CMP Products Limited**

6 Address: **Glasshouse Street  
St Peters  
Newcastle-upon-Tyne  
NE6 1BS  
UK**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.



9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2006	IEC 61241-0:2004	EN 60079-7:2007
EN 60079-1:2007	EN 61241-1:2004	

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

	I M2	or		II 2 G D
	Ex d I			Ex d IIC
	Ex e I			Ex e II
				Ex tD A21 IP66

Note: The manufacturer may choose to include additional compliance marking.

D R Stubbings BA MIET  
Certification Manager

Project Number 23739 and 24049  
C. Index 07

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**Sira Certification Service**

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13 DESCRIPTION OF EQUIPMENT

**T3CDS** – a range of displacement type cable glands, each comprises of a hollow threaded entry component containing a compensating (CDS) seal with associated ferrule, a skid washer with front seal, a clamping sleeve and reversible armour cone. The assembly is actuated by a threaded main gland body. A rear seal and threaded nut are fitted to the other end of the body. The glands are intended for use with appropriately sized SWA, 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/PB** - Identical to the T3CDS Type but incorporates a continuity washer and are suitable for use with lead sheathed cables.

**TE1F\* Type** - Identical inner seal/armour clamp front/outer seal to the T3CDS Type but overall length is shortened. The glands are intended for use with appropriately sized SWA, strip armoured, tape armoured or 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 (mm)		SWA, STA, strip armour, pliable wire armour & wire braid (mm)		Outer seal sheath range ø (mm)	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	M16x1.5	---	3.1	8.7	0	1.0	0.9	1.0	6.1	13.2
20S16	M20x1.5	M25x1.5	3.1	8.7	0	1.0	0.9	1.25	6.1	13.2
20S16/20S	M20x1.5	M25x1.5	3.1	8.7	0	1.0	0.9	1.25	9.5	15.9
20S	M20x1.5	M25x1.5	6.1	11.7	0	1.0	0.9	1.25	9.5	15.9
20	M20x1.5	M25x1.5	6.5	14.0	0	1.0	0.9	1.25	12.5	20.9
25S	M25x1.5	M32x1.5	11.1	20.0	0	1.0	1.25	1.6	14.0	22.0
25	M25x1.5	M32x1.5	11.1	20.0	0	1.0	1.25	1.6	18.2	26.2
32	M32x1.5	M40x1.5	17.0	26.3	0	1.0	1.6	2.0	23.7	33.9
40	M40x1.5	M50x1.5	22.0	32.2	0	1.0	1.6	2.0	27.9	40.4
50S	M50x1.5	M63x1.5	29.5	38.2	0	1.0	2.0	2.5	35.2	46.7
50	M50x1.5	M63x1.5	35.6	44.1	0	1.0	2.0	2.5	40.4	53.1
63S	M63x1.5	M75x1.5	40.1	50.0	0	1.0	2.0	2.5	45.6	59.4
63	M63x1.5	M75x1.5	47.2	56.0	0	1.0	2.0	2.5	54.6	65.9
75S	M75x1.5	M90x2.0	52.8	62.0	0	1.0	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	114.2	123.3

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#### Design Options

- Entry Thread options: Metric to BS 3643:1981  
ET to BS 31: 1940  
PG to DIN 40430:1971  
BSPP to BS 2779:1973  
BSPT to BS 21:1985  
ISO to ISO 7/1:1982  
NPT to USAS B2.1-1968  
NPT to ANSI/ASME B1.20.1-1983  
NPSM to ANSI/ASME B1.20.1-1983
- Material options for metallic parts: Brass (standard T3CDS), mild steel, stainless steel (standard TE1F\*) or aluminium with a magnesium content less than 6% by weight.
- The option to have an alternative entry component profile that incorporates an earth lug.
- Single or double sided and with an identically dimensioned plain taper each side for SWA type cables, the gland type designation becoming T3CDSW, T3CDSW/PB, TE1FW and TE1FW/PB.
- Single or double sided with an identically dimensioned grooved taper each side for strip armoured or braided type cables; the gland type designation becoming T3CDSX, T3CDSX/PB, TE1FX and TE1FX/PB.
- 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. RT3CDS.

**Variation 1** - This variation introduced the following change:

- i. Revised outer sealing arrangement.

**Variation 2** - This variation introduced the following change:

- i. A 20s16/20s combination gland
- ii. The option for the glands to be manufactured with an entry thread that is one size up from the nominal gland size.
- iii. The recognition of alternative armour cone diameters

**Variation 3** - This variation introduced the following changes:

- i. The increase in scope of use to include Group I was recognised a new Special Condition For Safe Use is also introduced.
- ii. The introduction of an alternative outer seal arrangement to allow the fitting of the glands to flexible conduit and an associated Special Condition For Safe Use..
- iii. A size 16 gland was introduced to the range.



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**Variation 4:** This variation introduced the following changes:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest EN 60079 series of standards, the documents originally listed in section 9, IEN 60079-1:2004 and EN 60079-7-1:2003, were replaced by those currently listed, the markings in section 12 were updated accordingly.
- ii. The introduction of a shorter version of the 'T3CDS' glands, having the type designation 'TE1F\*' was recognised, the description is modified to include this version.
- iii. Typographical errors to the drawings and description were amended; a table of the gland ranges sizes was also added in line with other gland range types.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report No.	Comment
0	14 December 2006	R51M15144A	The release of prime certificate.
1	15 June 2007	R51M16256A	This Issue covers the following changes: <ul style="list-style-type: none"><li>• All previously issued certification was rationalised into a single certificate, Issue 1, Issues 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as document in this format.</li><li>• The introduction of Variation 1</li></ul>
2	19 December 2007	-	Removal of Cat 3 marking
3	20 October 2008	R59M18794A	The introduction of Variation 2.
4	19 November 2009	R20049A	The introduction of Variation 3.
5	3 February 2011	R23739A R24049A	The introduction of Variation 4.

#### 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

- 15.1 The glands shall only be used on enclosures where the temperature, at the point of mounting, is in the range  $-60^{\circ}\text{C}$  to  $+130^{\circ}\text{C}$ .
- 15.2 When used with braided cable, the glands shall be used for fixed installations only. Cables must be effectively clamped to prevent pulling or twisting.
- 15.3 When used in Group I applications, the equipment shall only be mounted where the risk of mechanical impact is low.
- 15.4 When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 When glands are manufactured with an entry thread that is one size up from nominal quoted gland size, these thread entries shall not be any larger than the largest thread size within that range.
- 17.4 When glands are manufactured with an entry thread that is one size up from nominal quoted gland size, the thread entry size will be marked on the gland.

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# Certificate Annexe

Certificate Number: Sira 06ATEX1283X  
Equipment: Type T3CDS and T3CDS/PB Cable Glands  
Applicant: CMP Products Limited



## Issue 0

Drawing No.	Sheet	Rev.	Date	Description
GA043	1 of 1	06	27 Oct 06	Triton CDS General Arrangement
GA132	1 of 1	02	22 Nov 06	Alternative outer seal arrangement
SCH0210	1 of 1	03	02 Oct 06	Triton armour cone variations
MP888	1 of 1	-	02 Oct 06	Machining tolerance detail
SCH0242	1 of 1	-	02 Oct 06	Outer seal arrangement

## Issue 1

Drawing No.	Sheet	Rev.	Date	Description
SCH0242	1 of 1	8	12 Feb 07	Outer seal arrangement

Issue 2 No new drawings were introduced

## Issue 3

Drawing No.	Sheet	Rev.	Date	Description
GA043	1 of 1	10	17 Jul 08	Triton CDS General Arrangement
SCH0235	1 of 1	03	22 Jul 08	Modified armour clamp operational details
MP888	1 of 1	06	11 Feb 08	Machining tolerances detail

## Issue 4

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GA043	1 of 1	11	10 Nov 09	Triton CDS general arrangement & marking
GA256	1 of 1	00	10 Nov 09	Outer seal nut adaptor details
SCH0242	1 of 1	09	10 Nov 09	Outer seal arrangement

## Issue 5

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GA306	1 of 1	00	03 Feb 11	TE1FU General Arrangement
GA043	1 of 1	12	03 Feb 11	Triton CDS general arrangement & marking
MP888	1 of 1	07	03 Feb 11	Machining tolerance detail
SCH0235	1 of 1	04	03 Feb 11	Modified armour clamp operational details

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