



1 EC TYPE-EXAMINATION CERTIFICATE

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

3 Certificate Number: Sira 07ATEX1044X Issue: 0

4 Equipment: Type BARRIERTEX-A & BARRIERTEX-F Compound Filled Cable Glands

5 Applicant: CCG Cable Terminations (Pty) Limited

6 Address: 37 Forge Road

Spartan Ind. Area Kempton Park 1619

South Africa

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 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 EN 61241-0:2006 EN 60079-1:2004 EN 61241-1:2004

EN 60079-7:2003

- 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.
- 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/II 2 GD Ex d I/IIC Ex e I/II Ex tD A21 IP6X

Project Number 51A15870 C. Index 07

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C Ellaby Certification Officer

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England





SCHEDULE

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13 **DESCRIPTION OF EQUIPMENT**

These ranges of compound cable glands are to be installed in a threaded entry point on an associated flameproof or increased safety enclosure without compromising the explosion protection provided by the enclosures, in accordance with relevant codes of practice, and are used to terminate the following cable types:

The BARRIERTEX-A - elastomeric insulated, circular, single steel wire armoured cables The BARRIERTEX-F elastomeric insulated, circular, unarmoured cables

The ranges of compound filled cable glands consist of a male-threaded front inner component, fitted externally with an optional nipple gasket on the enclosure interface thread and an O-ring seal on the inner to body mating thread. Internally the inner component is fitted with a compound pot (sleeve or cone), fitted externally with an O-ring interface seal, such that a spigot/combination joint is formed, which is intended to screw into an entry point of its associated enclosure. The compound pot contains an epoxy barrier compound that effects a flameproof seal around the cable cores passing through it and is retained by either a sleeve or cone component. Electrical continuity of any armour (as applicable) is made between the cone and cone ring components within the body component and being fastened to the front inner component. The cone ring being externally fitted with an O-ring interface seal. A sub-assembly of an outer nut, skid ring and elastomeric seal threads onto the body providing additional environmental sealing against the cable outer sheath.

Design options

- The cable glands may be manufactured from nickel plated brass (CZ121), stainless steel (316), mild steel (070M20 EN3A) or bronze (Pb 2) dependent on application.
- The front entry component may be manufactured with either of the following entry thread forms complying with the requirements of EN 60079-1, Clause 5.3 Tables 3 and 4 and clause C.2.2 (as applicable): Metric or NPT.
- The front threaded inner entry component may be fitted with an optional nipple gasket provided in either: Polypropylene or HDPE.
- The O-ring seals may be manufactured from: Neoprene, Silicone or Ethylene-propylene.
- The skid ring can be manufactured in either: Nickel plated brass, stainless steel, bronze, polypropylene or HDPE.

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Cable gland cable accommodation

CABLE GLAND SELECTION TABLE FOR TYPE – BARRIERTEX-A								
Size	Entry thread size			Protrusion				
ref.	-		Inner Sheath/Cores		Outer sheath		Min. steel	length
	Metric	NPT	Max. over cores dia.	Max. no. of cores	Min.	Max.	wire armour dia.	
00-20ss	M20	½" or ¾"	9	6	8.0	13.5	0.9	78
0-20s	M20	½" or ¾"	9	6	11.5	16.0	0.9	78
1-20	M20	½" or ¾"	11	10	14.5	21.0	0.9	82
2-25	M25	3⁄4" or 1"	16	20	20.5	27.0	1.25	87
3-32	M32	1" or 1¼"	22	40	26.5	33.5	1.25	90
4-40	M40	1¼" or 1½"	27	60	33.0	43.0	1.6	97
5-50	M50	2"	37	80	42.5	52.5	2.0	105
6-63	M63	21/2"	48	100	52.0	65.5	2.5	132

CABLE GLAND SELECTION TABLE FOR TYPE – BARRIERTEX-F									
Size	Entry thread size		Cable Acceptance Details						
ref.			Inner Sheath/Cores			sheath	Protrusion		
	Metric	NPT	Max. over cores dia.	Max. no. of cores	Min.	Max.	length		
00-20ss	M20	½" or ¾"	8	6	5.0	8.0	72		
0-20s	M20	½" or ¾"	9	6	8.0	11.0	72		
1-20	M20	½" or ¾"	11	10	11.0	15.5	78		
2-25	M25	3⁄4" or 1"	16	20	15.0	20.5	80		
3-32	M32	1" or 11/4"	22	40	20.0	26.5	82		
4-40	M40	1¼" or 1½"	27	60	26.0	34.5	95		
5-50s	M50	2"	35	70	32.5	38.0	100		
5-50	M50	2"	37	80	38.0	44.5	100		
6-63s	M63	21/2"	45	90	44.5	50.0	100		
6-63	M63	21/2"	48	100	50.0	56.0	100		

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	7 March 2008	R51A15870A	The release of the prime certificate.

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- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 The cable glands shall only be used where the temperature, at the point of entry, is between -20°C to +80°C.
- The interfaces between the male thread of the cable glands and the associated enclosure cannot be defined. Therefore it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
- 15.3 The following minimum installation tightening torque values apply:

Size ref.	Metric	NPT	BRTX-F (Nm)	BRTX-A (Nm)
00-20ss	M20	½" or ¾"	35	23.1
0-20s	M20	½" or ¾"	35	23.1
1-20	M20	½" or ¾"	35	23.1
2-25	M25	3⁄4" or 1"	50	33
3-32	M32	1" or 11/4"	70	46.2
4-40	M40	1¼" or 1½"	86.8	57.2
5-50s	M50	2"	110	-
5-50	M50	2"	100	62.7
6-63s	M63	21/2"	120	-
6-63	M63	21/2"	120	72.6

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.

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.

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Certificate Annexe

Certificate Number: Sira 07ATEX1044X

Equipment: Type BARRIERTEX-A & BARRIERTEX-F

Compound Filled Cable Glands

Applicant: CCG Cable Terminations (Pty) Limited



Issue 0

Number	Sheet	Rev.	Date (Sira stamp)	Description
BRTX-A-MARKING	1 of 1	3	29 Feb 08	BRTX-A armoured cable marking.
BRTX-F-MARKING	1 of 1	3	29 Feb 08	BRTX-F unmoured cable marking.
BRTX-A	1 of 1	4	29 Feb 08	BRTX-A General arrangement (mertic)
BRTX-A-NPT	1 of 1	6	29 Feb 08	BRTX-A General arrangement (NPT)
BRTX-F	1 of 1	4	29 Feb 08	BRTX-F General arrangement (mertic)
BRTX-F-NPT	1 of 1	5	29 Feb 08	BRTX-F General arrangement (NPT)
BRTX-A-M	1 of 1	2	29 Feb 08	BRTX-A Bill of materials
BRTX-F-M	1 of 1	1	29 Feb 08	BRTX-F Bill of materials
0523-O	1 of 1	00	29 Feb 08	BRTX-A Outer nut
0536-O	1 of 1	02	29 Feb 08	BRTX-F Outer nut
0523-SR	1 of 1	1	29 Feb 08	BRTX-A Skid ring
0540-SR	1 of 1	01	29 Feb 08	BRTX-F Skid ring
0523-OS	1 of 1	2	29 Feb 08	BRTX-A outer seal
BRTX-F-GS	1 of 1	2	29 Feb 08	BRTX-F outer seal
BRTX-A-B	1 of 1	01	29 Feb 08	BRTX-A body
BRTX-F-B	1 of 1	2	29 Feb 08	BRTX-F body
0523-BR-CR	1 of 1	2	29 Feb 08	BRTX-A cone ring
BRTX-A-C	1 of 1	2	29 Feb 08	BRTX-A cone
BRTX-F-S	1 of 1	3	29 Feb 08	BRTX-F sleeve
BRTX-I	1 of 1	2	29 Feb 08	Barrier inner (metric)
BRTX-I-NPT	1 of 1	5	29 Feb 08	Barrier inner (NPT)
0523-W	1 of 1	3	29 Feb 08	Nipple gasket

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