

**Australian/New Zealand
Certification Scheme for**

EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT

ANZEx Scheme

Certificate of Conformity

Certificate No.: ANZEx 09.4079X	Issue No.: 2	Date of Issue: 18th October 2011
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Certificate Holder: CCG Cable Terminations (PTY) LTD
33 – 37 Forge Road
Spartan Industrial Area, Kempton Park 1619
SOUTH AFRICA



Electrical Apparatus: A2F, A2FX, and A2FCG Cable Gland Range

Type of Protection: Ex d, Ex e, Ex nR and Ex tD A21

Marking Code: ANZEx 09.4079X
Ex d IIC, Ex e II
Ex nR II
Ex tD A21 IP66/67/68 (2m)

Manufacturing Location(s): CCG Cable Terminations (PTY) LTD
33 - 37 Forge Rd
Spartan Industrial Area, Kempton Park 1619
SOUTH AFRICA

This certificate and schedule shall not be reproduced except in full

 ABN 60 098 886 563	<p>Certificate issued by</p> <p><i>ITACS Pty. Ltd.</i> <i>4-6 Second Street SA 5007 Australia</i> <i>PO Box 300 Hindmarsh SA 5007 Australia</i> <i>Phone: +61 8 8346 8680 Fax: +61 8 8346 7072</i> <i>Email: itacs@itacslab.com</i></p>	 Accreditation by the Joint Accreditation System of Australia and New Zealand Acc No. Z2870404AA www.jas-anz.org
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*This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication **MP87.1:2008***

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:

AS/NZS 60079.15:2006	Electrical apparatus for explosive gas atmospheres Part 15 Construction, test and marking of type of protection, n electrical apparatus
AS/NZS 60079.0:2005	Electrical apparatus for explosive gas atmospheres Part 0: General requirements.
AS/NZS 60079-1:2005	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures “d”
AS/NZS 60079-7:2006	Electrical apparatus for Explosive atmospheres Part 7: Equipment protection by increased safety “e”
AS/NZS 61241-0:2005	Electrical apparatus for use in the presence of combustible dust Part 0: General requirements.
AS/NZS 61241-1:2005	Electrical apparatus for use in the presence of combustible dust Part 1: Protection by enclosures tD
AS 1939-1990	Degrees of protection by enclosures of electrical equipment (IP Code)

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above. Attention is drawn to the fact that the above Standards have been superseded.*

TEST & ASSESSMENT REPORTS:

The equipment listed has successfully met the examination and test requirements as recorded in

Test Report No. and Issuing Body: **ITACS TR 5397 & 19400793.001**
Quality Assessment Report No. and Issuing Body: **IECEX QAR, ITACS - AU/ITA/QAR08.0002/03**

File Reference: ANZ Ex 09.4079X-2



Signed for and on behalf of issuing body

Certification Authority
Position

18th October 2011
Date of Issue

This certificate and schedule shall not be reproduced except in full
This certificate is not transferable and remains the property of the issuing body
and must be returned in the event of it being revoked or not renewed.

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Schedule

EQUIPMENT:

A2F is a single seal compression gland providing sealing and cable retention onto the outer sheath of unarmoured cable. It comprise of a metallic outer compression nut, a skid ring, a tapered displacement seal, a metallic inner body and washer. The glands are available with metric threads and NPT threads.

A2FX is a double seal compression gland providing sealing and cable retention at two independent sealing points on the outer sheath of unarmoured cable. It comprises of a metallic outer compression nut, a skid ring and tapered displacement seal, an inner compression nut, an inner skid ring and displacement seal and a metallic inner body with a washer. Glands are available with metric threads and NPT threads.

A2FCG is a double seal compression gland providing sealing and cable retention at two independent sealing points on the outer sheath of unarmoured cable. It comprises of a non-metallic outer compression nut, a skid ring and displacement seal locking against a non-metallic body. The non-metallic body covers the whole of the metallic parts and compresses against the washer located against the body of the enclosure. The non-metallic body engages the metallic inner compression nut, skid ring and displacement seal and a metallic inner body with the washer. Glands are available with metric threads.

Note: The non-metallic parts provide corrosion protection to the metallic gland and does not form an essential part of the explosion protection. Therefore, the corrosion guard gland is essentially of the same construction / design as the A2F gland (with a single seal), covered by a non metallic shroud and seal.

All cable glands hold an IP rating of IP66/IP67/IP68(2m).

The models listed in the tables below are covered.

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Table 1 – A2F Gland

Gland Size Ref	Entry Thread		CABLE DETAILS Diameter (Sheath)	
	Thread Type (mm)	Thread Length (mm Min)	Min (mm)	Max (mm)
00-16ss	M16 x 1.5	15.0	3.0	8.5
00-20ss	M20 x 1.5	15.0	3.0	8.5
0-20s	M20 x 1.5	15.0	7.0	12.0
1-20	M20 x 1.5	15.0	11.0	15.5
2-25s	M25 x 1.5	15.0	11.5	17.5
2-25	M25 x 1.5	15.0	15.0	20.2
3-32s	M32 x 1.5	15.0	16.0	22.0
3-32	M32 x 1.5	15.0	20.0	26.5
4-40s	M40 x 1.5	15.0	22.0	31.5
4-40	M40 x 1.5	15.0	26.0	34.5
5-50s	M50 x 1.5	15.0	29.0	38.0
5-50	M50 x 1.5	15.0	34.0	44.5
6-63s	M63 x 1.5	15.0	38.0	50.0
6-63	M63 x 1.5	15.0	44.0	57.0
7-75s	M75 x 1.5	15.0	50.0	62.0
7-75	M75 x 1.5	15.0	56.0	68.0
8-80s	M80 x 2.0	20.0	54.0	69.0
8-80	M80 x 2.0	20.0	65.0	74.0
9-90s	M90 x 2.0	20.0	60.0	75.0
9-90	M90 x 2.0	20.0	73.0	82.0
10-100	M100 x 2.0	20.0	81.0	92.0
11-110	M110 x 2.0	20.0	91.0	102.0

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Table 2 – A2F - NPT Gland

Gland Size Ref	Entry Thread		CABLE DETAILS Diameter (Sheath)	
	Thread Type (inch)	Thread Length (mm Min)	Min (mm)	Max (mm)
00-20ss	1/2	15.0	3.0	8.5
00-20ss	3/4	15.0	3.0	8.5
0-20s	1/2	15.0	7.0	12.0
0-20s	3/4	15.0	7.0	12.0
1-20	1/2 or 3/4	15.0	11.0	15.5
2-25s	3/4 or 1	15.0 / 19.0	11.5	17.5
2-25	3/4 or 1	15.0 / 19.0	15.0	20.2
3-32s	1 or 1 1/4	19.0	16.0	22.0
3-32	1 or 1 1/4	19.0	20.0	26.5
4-40s	1 1/4 or 1 1/2	19.0 / 21.0	22.0	31.5
4-40	1 1/4 or 1 1/2	19.0 / 21.0	26.0	34.5
5-50s	1 1/2 or 2	21.0	29.0	38.0
5-50	1 1/2 or 2	21.0	34.0	44.5
6-63s	2 or 2 1/2	21.0 / 30.0	38.0	50.0
6-63	2 or 2 1/2	21.0 / 30.0	44.0	57.0
7-75s	2 1/2 or 3	30.0 / 32.0	50.0	62.0
7-75	2 1/2 or 3	30.0 / 32.0	56.0	68.0
8-80s	3	32.0	54.0	69.0
8-80	3	32.0	65.0	74.0
9-90s	3 or 3 1/2	32.0 / 33.0	60.0	75.0
9-90	3 or 3 1/2	32.0 / 33.0	73.0	82.0
10-100	3 1/2 or 4	33.0 / 34.0	81.0	92.0
11-110	4	34.0	91.0	102.0

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Table 3 – A2FX Gland

Gland Size Ref	Entry Thread		Cable Details	
	Thread Type (mm)	Thread Length (mm Min)	Min (mm)	Max (mm)
00-16ss	M16 x 1.5	15.0	3.0	8.5
00-20ss	M20 x 1.5	15.0	3.0	8.5
0-20s	M20 x 1.5	15.0	7.0	11.0
1-20	M20 x 1.5	15.0	11.0	15.5
2-25s	M25 x 1.5	15.0	11.5	17.5
2-25	M25 x 1.5	15.0	15.0	20.5
3-32s	M32 x 1.5	15.0	16.0	22.0
3-32	M32 x 1.5	15.0	20.0	26.5
4-40s	M40 x 1.5	15.0	22.0	31.5
4-40	M40 x 1.5	15.0	26.0	34.5
5-50s	M50 x 1.5	15.0	29.0	38.0
5-50	M50 x 1.5	15.0	34.0	44.5
6-63s	M63 x 1.5	15.0	38.0	50.0
6-63	M63 x 1.5	15.0	44.0	57.0
7-75s	M75 x 1.5	15.0	50.0	62.0
7-75	M75 x 1.5	15.0	56.0	68.0
8-80s	M80 x 2	20.0	54.0	67.0
8-80	M80 x 2	20.0	65.0	74.0
9-90s	M90 x 2	20.0	60.0	75.0
9-90	M90 x 2	20.0	73.0	82.0
10-100	M100 x 2	20.0	81.0	92.0
11-110	M110 X 2	20.0	91.0	102.0

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Table 4 – A2FX-NPT Gland

Gland Size Reference	Entry Thread		Cable Details	
	Thread Type (inch)	Thread Length (mm Min)	Min (mm)	Max (mm)
00-20ss	1/2 or 3/4	15.0	3.0	8.5
0-20s	1/2 or 3/4	15.0	7.0	11.5
1-20	1/2 or 3/4	15.0	11.0	15.5
2-25s	3/4 or 1	15.0 / 19.0	11.5	17.5
2-25	3/4 or 1	15.0 / 19.0	15.0	20.5
3-32s	1 or 1 1/4	19.0	16.0	22.0
3-32	1 or 1 1/4	19.0	20.0	26.5
4-40s	1 1/4 or 1 1/2	19.0 / 21.0	22.0	31.5
4-40	1 1/4 or 1 1/2	19.0 / 21.0	26.0	34.5
5-50s	1 1/2 or 2	21.0	29.0	38.0
5-50	1 1/2 or 2	21.0	34.0	44.5
6-63s	2 or 2 1/2	21.0 / 30.0	38.0	50.0
6-63	2 or 2 1/2	21.0 / 30.0	44.0	57.0
7-75s	2 1/2 or 3	30.0 / 32.0	50.0	62.0
7-75	2 1/2 or 3	30.0 / 32.0	56.0	68.0
8-80s	3	32.0	54.0	67.0
8-80	3	32.0	65.0	74.0
9-90s	3 or 3 1/2	32.0 / 33.0	60.0	75.0
9-90	3 or 3 1/2	32.0 / 33.0	73.0	82.0
10-100	3 1/2 or 4	33.0 / 34.0	81.0	92.0
11-110	4	34.0	91.0	102.0

Table 5 – A2FCG CORROSION GUARD Gland

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Gland Size Ref	Entry Thread		Cable Details	
	Thread Type (mm)	Thread Length (mm Min)	Min (mm)	Max (mm)
00-16ss	M16 x 1.5	15.0	3.0	8.5
00-20ss	M20 x 1.5	15.0	3.0	8.5
0-20s	M20 x 1.5	15.0	7.0	11.5
1-20	M20 x 1.5	15.0	11.0	15.5
2-25s	M25 x 1.5	15.0	11.5	17.5
2-25	M25 x 1.5	15.0	15.0	20.5
3-32s	M32 x 1.5	15.0	16.0	22.0
3-32	M32 x 1.5	15.0	20.0	26.5
4-40s	M40 x 1.5	15.0	22.0	31.5
4-40	M40 x 1.5	15.0	26.0	34.5
5-50s	M50 x 1.5	15.0	29.0	38.0
5-50	M50 x 1.5	15.0	34.0	44.5
6-63s	M63 x 1.5	15.0	38.0	50.0
6-63	M63 x 1.5	15.0	44.0	57.0
7-75s	M75 x 1.5	15.0	50.0	62.0
7-75	M75 x 1.5	15.0	56.0	68.0
8-80s	M80 x 2	25.0	54.0	67.0
8-80	M80 x 2	25.0	65.0	74.0
9-90s	M90 x 2	25.0	60.0	75.0
9-90	M90 x 2	25.0	74.0	82.0
10-100	M100 x 2	25.0	81.0	91.0

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Marking Code. The following Marking Code applies:

A2F Glands

CCG X A2F YYzz
ANZEx 09.4079X
Ex d IIC, Ex e II, Ex nR II
Ex tD A21 IP66/67/68 (2m CONT.)

A2FX Glands

CCG S A2FX YYzz
ANZEx 09.4079X
Ex d IIC, Ex e II, Ex nR II
Ex tD A21 IP66/67/68 (2m CONT.)

A2FCG Glands

CCG X A2FCG YYzz
ANZEx 09.4079X
Ex d IIC, Ex e II, Ex nR II
Ex tD A21 IP66/67/68 (2m CONT.)

Where X (or S) indicates the gland number e.g. 00 to 11 (see Tables 1-5 above) and

Where YY ZZ indicates the gland size (e.g. 16ss to 110) (see Tables 1-5 above)

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ISSUE 0 AND VARIATIONS PERMITTED BY ISSUE 1

For details refer to previous issues of the certificate.

VARIATIONS PERMITTED BY ISSUE 2

1. Additional “s” size glands in ranges of glands to extend the range to accommodate different diameter cables.
2. Including additional materials for seals and gaskets.
3. Increase of the service temperature of the glands to -20°C to 95°C.
4. Small dimensional corrections / improvements on the gland series.
5. Updating the standards to later series of standards with identical requirements. Full gland series covered by this update. See sheet 2 for list of current Standards.
6. Consolidating the drawings of all revisions into a single set of drawings
7. A condition of manufacture was added and the special conditions of use updated.
8. Updating of marking.

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CONDITIONS OF CERTIFICATION:

Conditions of manufacture

It is a condition of manufacture / certification that a copy of the relevant certificate and instructions must be provided with / made available for the glands, including the installation torque.

Special conditions of use

- a) The cable glands are only to be used on fixed installation of Group II apparatus: The end user is to ensure that adequate clamping of the cable has been made.
- b) Cable glands are not to be installed on Ex d group IIC equipment which has a free internal volume of more than 2 litres.
- c) Cable Glands are only to be used with the sealing ring, o-ring and gasket provided by the manufacturer.
- d) The option of using the gland in a non-threaded hole secured with a locknut is only applicable to increased safety, restricted breathing or dust ignition proof applications, providing IP54 (Ex e), IP65 (Ex tD) or restricted breathing is maintained as applicable and in accordance with the manufacturer's instructions.
- e) The service temperature range of the gland must be within -20°C to +95°C

DRAWINGS:

Drawing Schedule Relating to Issue 2:

Drawing No.	Drawing Title	Rev.	Date
0540-M	No."M" A2F GLAND	4	11/09/23
0540-A	No."M" A2F GLAND	3	11/09/19
05400-05411-O	No."M" A2F OUTER 00-11	3	11/09/20
05400-054011-I	No."M" A2F INNER	2	11/09/20
0540-GS	No.00 TO 11 A2F GRIPPER SEAL	4	11/09/19
0540-W	No."M" A2F WASHER	2	11/09/19
0540-SR	No."M" A2F SKID RING	3	11/09/19
0540-OR	A2F 'O' RING 00-11	3	11/09/19

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Drawing No.	Drawing Title	Rev.	Date
0540-NPT-M	A2F GLAND MATERIALS	2	11/09/23
0540-A-NPT	A2F – NPT CABLE GLAND	3	11/09/19
05400-054011-I-NPT	No."M" A2F INNER 1/2" NPT – 4" NPT	3	11/09/20
0542-M	A2FX GLAND MATERIALS	1	11/08/07
0542-A	No. X A2FX GLAND	1	11/09/20
054016-O-054011-O	No."M" A2FX OUTER	1	11/09/20
0542-A-NPT	No. X A2FX GLAND	1	11/09/20
0541-M	A2F CORROSION GUARD MATERIAL	2	11/09/23
0541-A	No."M" A2F CORROSION GUARD	1	11/09/19
0542016-O-0542011-O	No."M" A2FX CORROSION OUTER	1	11/09/20
E.00.00.48.000/BODY-ASSY	EXCG BODY COMPONENTS	5	11/08/07
054700-OS – 054710-OS	No "X" EXCG OUTER SEAL	4	11/08/07
054700-SR – 054710-SR	No.00 TO No.10 EXCG SKID RING	4	11/08/07
054700-SG – 054710-SG	No.00 TO No.10 EXCG GASKET	3	11/08/07
0540-Marking	A2F GLAND MARKING	6	11/09/22
0541-Marking	A2FCG GLAND Marking	9	11/09/22
0542-Marking	A2FX GLAND MARKING	9	11/09/22