



### 1 EC TYPE-EXAMINATION CERTIFICATE

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

3 Certificate Number: Sira 14ATEX1006X Issue: 0

4 Equipment: Threaded Adaptors, Reducers, Unions, Couplers and Blanking Plugs

5 Applicant: CCG Cable Terminations PTY LTD

6 Address: 33-37 Forge Road

Spartan Industrial 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 60079-0:2012

EN 60079-1:2007

EN 60079-7:2007

EN 60079-31:2009

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

- 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 G D Ex d I Mb

Ex e I Mb Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db

This is the full marking that is relevant to these devices, because of limited space, a summarised version appears on the actual products.



Project Number 31733

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C Ellaby

**Deputy Certification Manager** 

**Sira Certification Service** 

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### EC TYPE-EXAMINATION CERTIFICATE

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### 13 DESCRIPTION OF EQUIPMENT

Threaded Adaptors and Reducers are manufactured from brass (nickel plated), stainless steel, mild steel or bronze and comprise a hollow, hexagonal body of which a portion has an external male thread and an internal female thread. These devices are designed to convert threaded entries into different thread forms and/or sizes. The sizes and forms are shown in Tables 1 to 4.

Table 1, Metric to Metric

Male	Fema	le (Met	ric)								
(Metric)	M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100
M16	Α	Α	Α								
M20	R	Α	Α	Α							
M25	R	R	Α	Α	Α						
M32	R	R	R	Α	Α	Α					
M40	R	R	R	R	Α	Α	Α				
M50	R	R	R	R	R	Α	Α	Α			
M63	R	R	R	R	R	R	Α	Α	Α		
M75	R	R	R	R	R	R	R	Α	Α	Α	
M80	R	R	R	R	R	R	R	R	Α	Α	Α
M90	R	R	R	R	R	R	R	R	R	Α	Α
M100	R	R	R	R	R	R	R	R	R	R	Α

A = Adaptor, R = Reducer

Table 2, Metric to BSP/NPT

Male	Female	(BSP/NF	PT)							
(Metric)	1/2"	3/4"	1"	11/4"	1½"	2"	21/2"	3"	31/2"	4"
M16	Α	Α								
M20	A/R*	Α	Α							
M25	R	A/R*	Α	Α						
M32	R	R	A/R*	Α	Α					
M40	R	R	R	A/R*	Α	Α				
M50	R	R	R	R	A/R*	Α	Α			
M63	R	R	R	R	R	A/R*	Α	Α		
M75	R	R	R	R	R	R	A/R*	Α	Α	
M80	R	R	R	R	R	R	R	A/R*	Α	Α
M90	R	R	R	R	R	R	R	R	A/R*	Α
M100	R	R	R	R	R	R	R	R	R	Α

A = Adaptor, R = Reducer, R\* = Metric to NPT reducers only

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Table 3, BSP/NPT to Metric

Male	Female	(Metric	)								
(BSP/NPT)	M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100
1/2"	R	Α	Α	Α							
3/4"	R	R	Α	Α	Α						
1"	R	R	R	Α	Α	Α					
11/4"	R	R	R	R	Α	Α	Α				
11/2"	R	R	R	R	R	Α	Α	Α			
2"	R	R	R	R	R	R	Α	Α	Α		
21/2"	R	R	R	R	R	R	R	Α	Α	Α	
3"	R	R	R	R	R	R	R	R	Α	Α	Α
31/2"	R	R	R	R	R	R	R	R	R	Α	Α
4"	R	R	R	R	R	R	R	R	R	R	Α

A = Adaptor, R = Reducer

Table 4, BSP to BSP, BSP to NPT, NPT to BSP and NPT to NPT

Male	Female	(BSP/N	PT)							
(BSP/NPT)	1/2"	3/4"	1"	11/4"	1½"	2"	21/2"	3"	3½"	4"
1/2"	Α	Α	Α							
3/4"	R	Α	Α	Α						
1"	R	R	Α	Α	Α					
11/4"	R	R	R	Α	Α	Α				
11/2"	R	R	R	R	Α	Α	Α			
2"	R	R	R	R	R	Α	Α	Α		
21/2"	R	R	R	R	R	R	Α	Α	Α	
3"	R	R	R	R	R	R	R	Α	Α	Α
31/2"	R	R	R	R	R	R	R	R	Α	Α
4"	R	R	R	R	R	R	R	R	R	Α

A = Adaptor, R = Reducer

Threaded couplings are manufactured from brass (nickel plated), stainless steel, mild steel or bronze. The devices comprise a hexagonal body with an external male thread at each end. These devices are designed to provide an intermediate part for fitting between certified glands and threaded entries of the same form and/or sizes of female to female threads. The coupler sizes and forms are shown in Tables 5 to 7.

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Table 5, Coupling - Metric to Metric

Male	Male (	Metric)									
(Metric)	M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100
M16	Χ										
M20	Χ	Χ									
M25	Χ	Χ	Χ								
M32		Χ	Χ	Χ							
M40		Χ	Χ	Χ	Χ						
M50			Χ	Χ	Χ	Χ					
M63				Х	Χ	Χ	Χ				
M75					Χ	Χ	Χ	Χ			
M80						Х	Χ	Χ	Χ		
M90							Χ	Χ	Χ	Χ	
M100								Х	Χ	Χ	Χ

Table 6, Coupling - BSP to BSP, BSP to NPT and NPT to NPT

Male	Male (	BSP/NP1	Γ)							
(BSP/NPT)	1/2"	3/4"	1"	11/4"	1½"	2"	21/2"	3"	3½"	4"
1/2"	Χ									
3/4"	Χ	Χ								
1"	Χ	Χ	Χ							
11/4"		Х	Χ	Χ						
11/2"		Χ	Χ	Χ	Χ					
2"			Х	Χ	Χ	Χ				
21/2"				Х	Х	Χ	Х			
3"					Χ	Χ	Χ	Χ		
31/2"						Χ	Χ	Χ	Χ	
4"							Χ	Χ	Χ	X

Table 7, Coupling – BSP to Metric and NPT to Metric

Male	Male (I	Metric)									
(BSP/NPT)	M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100
1/2"	Х	Х	Х								
3/4"	Х	Х	Х	Χ	Х						
1"	Х	Х	Х	Χ	Х	Х					
1¼"		Х	Х	Х	Х	Х	Х				
11/2"		Х	Х	Χ	Х	Х	Х	Х			
2"			Х	Х	Х	Х	Х	Х	Х		
21/2"				Х	Х	Х	Х	Х	Х	Х	
3"					Х	Х	Х	Х	Х	Х	Х
31/2"						Х	Х	Х	Х	Х	Х
4"							Х	Х	Х	Х	Х

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Threaded unions are manufactured from brass (nickel plated), stainless steel, mild steel or bronze. The devices comprise a hexagonal body with an internal female thread at each end. These devices are designed to provide an intermediate part for fitting between certified glands and threaded entries of the same form and/or sizes of male to male threads. The union sizes and forms are shown in Tables 8 to 10.

Table 8, Union - Metric to Metric

Female	Female	e (Metric	:)								
(Metric)	M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100
M16	Χ										
M20	Χ	Χ									
M25	Χ	Χ	Χ								
M32	Χ	Χ	Х	Х							
M40	Χ	Χ	Χ	Χ	Χ						
M50		Χ	Χ	Χ	Χ	Χ					
M63			Х	Χ	Χ	Χ	Χ				
M75				Х	Χ	Χ	Χ	Χ			
M80					Х	Χ	Χ	Χ	Χ		
M90						Χ	Χ	Χ	Χ	Χ	
M100							Х	Х	Χ	Χ	Χ

Table 9, Union - BSP to BSP, BSP to NPT and NPT to NPT

Female	Female	(BSP/N	PT)							
(BSP/NPT)	1/2"	3/4"	1"	11/4"	1½"	2"	21/2"	3"	3½"	4"
1/2"	Х									
3/4"	Х	Х								
1"	Х	Х	Х							
11/4"	Х	Х	Х	Х						
1½"	Х	Χ	Х	Х	Х					
2"		Х	Х	Х	Х	Х				
21/2"			Х	Х	Х	Х	Х			
3"				Х	Х	Х	Х	Х		
31/2"					Х	Х	Χ	Χ	Х	
4"						Х	Х	Х	Х	Х

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Table 10, Union – Metric to BSP/NPT

Female	Female	(BSP/N	PT)							
(Metric)	1/2"	3/4"	1"	11/4"	1½"	2"	21/2"	3"	3½"	4"
M16	Χ	Χ	Х	Х						
M20	Χ	Χ	Х	Χ	Х					
M25	Χ	Χ	Χ	Χ	Χ	Х				
M32	Χ	Χ	Х	Х	Х	Х	Χ			
M40	Χ	Х	Х	Х	Х	Х	Χ	Χ		
M50		Χ	Х	Χ	Х	Х	Х	Χ	Х	
M63			Х	Χ	Х	Х	Х	Χ	Х	Χ
M75				Χ	Χ	Х	Χ	Χ	Х	Χ
M80					Х	Х	Х	Χ	Х	Χ
M90						Х	Χ	Χ	Х	Χ
M100							Х	Χ	Χ	Χ

Threaded blanking plugs are manufactured from brass (nickel plated), stainless steel, mild steel or bronze. These devices are designed for blanking off unused threaded entries in associated enclosures, as appropriate for the type of protection. The equipment utilise three different designs: threaded plugs with a dome head, threaded plugs with a hexagonal head, and stopper plugs with either internal or external hexagonal key-way. The sizes and forms are shown in Table 11.

Table 11, Threaded Blanking Plugs

Hex. head		Dome h	nead	Stopp (Ext. Hex. l		Stopper (Int. Hex. keyway)		
Metric	BSP/NPT	Metric	BSP/NPT	Metric	BSP/NPT	Metric	BSP/NPT	
M16	1/2"	M16	1/2"	M16	1/2"	M16	1/2"	
M20	3/4"	M20	3/4"	M20	3/4"	M20	3/4"	
M25	1"	M25	1"	M25	1"	M25	1"	
M32	11/4"	M32	11⁄4"	M32	11⁄4"	M32	11⁄4"	
M40	11/2"	M40	1½"	M40	11/2"	M40	1½"	
M50	2"	M50	2"	M50	2"	M50	2"	
M63	21/2"	M63	21/2"	M63	21/2"	M63	21/2"	
M75	3"	M75	3"	M75	3"	M75	3"	
M80x2 P	31/2"	M80x2 P	31/2"	M80x2 P	31/2"	M80x2 P	31/2"	
M90 x2 P	4"	M90 x2 P	4"	M90 x2 P	4"	M90 x2 P	4"	
M100 x2 P	-	M100 x2 P	-	M100 x2 P	-	M100 x2 P	-	

The following details the Model nomenclature:

Product Name	Model Nomenculature
Threaded Adaptors	AGZZZGYYYE
Threaded Reducers	RGZZZGYYYE
Threaded Unions	UGZZZGYYYE
Threaded Couplers	CGZZZGYYYE

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### **EC TYPE-EXAMINATION CERTIFICATE**

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Where:

A = Adaptor

R = Reducer

U = Union

C = Coupler

G = Threadfrom

M = Metric

N = NPT

B = BSP

ZZZ = Male thread size

YYY = Female thread size

E = Ex component part

Product Name	Model Nomenculature
Threaded Blanking plugs	PPFGZZZER

#### Where:

P = Plug

F = Plug type

S = Stopper

D = Dome head

H = Hex head

G = Threadfrom

M = Metric

N = NPT

B = HBSP

XXX = Thread size

E = Ex component part

R = Reverse 'internal' hex head keyway (Stopper plug type only)

Where the thread size coding is as follows:

Metric xxx	Act size	BSPxxx & NPT xxx	Act size
016	16	012	1/2
020	20	034	3/4
025	25	001	1
032	32	114	1 1/4
040	40	112	1 1/2
050	50	002	2
063	63	212	2 1/2
075	75	003	3
080	80	312	3 1/2
090	90	004	4
100	100	-	-

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### EC TYPE-EXAMINATION CERTIFICATE

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- 14 DESCRIPTIVE DOCUMENTS
- 14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	2 April 2014	R31733A/00	The release of the prime certificate.

- 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)
- 15.1. The interfaces between the products male and female parallel thread forms to their associated enclosures/cable entry devices cannot be defined. Therefore it is the user's responsibility to ensure that the minimum ingress protection level (IP54 for explosive gas atmospheres and IP6X explosive dust atmospheres) is maintained at these interfaces, this can be achieved using the manufacturer's guidance, as given in the user installation manual, and reference to EN 60079-14. (Note: When fitted correctly, all tapered threads, will automatically provide an ingress protection rating IP6X.)
- 15.2. A blanking plug shall not be used in conjunction with any other cable entry device.
- 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 14ATEX1006X

Equipment: Threaded Adaptors, Reducers, Unions,

**Couplers and Blanking Plugs** 

Applicant: CCG Cable Terminations PTY LTD



### Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
8055-SG	1 of 1	1	19 Mar 14	No."X" CCG Sealing Gasket
				(M16-M130 & ½" BSP-4" BSP)
AM016M100E MARKING - ATEX	1 of 2	-	24 Mar 14	Adaptors-Reducers-Plugs-Couplers and
				Unions Marking Details
AB012B012E to AB004B004E and	1 of 1	-	19 Mar 14	BSP to BSP Adaptors & Reducers Ex
RB034B012E to RB004B312E - ATEX				•
AB012M020E to AB004M100E and	1 of 1	-	19 Mar 14	BSP to Metric Adaptors & Reducers Ex
RB012M016E to RB004M100E - ATEX				·
AB012N012E to AB004N004E and	1 of 1	-	19 Mar 14	BSP to NPT Adaptors & Reducers Ex
RB034N012E to RB004N312E - ATEX				
AM016B012E to AM100B004E and	1 of 1	-	19 Mar 14	Metric to BSP Adaptors & Reducers Ex
RM025B012E to RM100B312E - ATEX				
AM016M016E to AM100M100E and	1 of 2	-	19 Mar 14	Metric to Metric Adaptors & Reducers Ex
RM020M016E to RM100M090E - ATEX				
AM016N012E to AM100N004E and	1 of 1	-	19 Mar 14	Metric to NPT Adaptors & Reducers Ex
RM020N012E to RM100N312E - ATEX				
AN012B012E to AN004B004E and	1 of 1	-	19 Mar 14	NPT to BSP Adaptors & Reducers Ex
RN034B012E to RN004B312E - ATEX				
AN012M020E to AN004M100E and	1 of 1	-	19 Mar 14	NPT to Metric Adaptors & Reducers Ex
RN012M016E to RN004M090E - ATEX				
AN012N012E to AN004N004E and	1 of 1	-	19 Mar 14	NPT to NPT Adaptors & Reducers Ex
RN034N012E to RN004N312E - ATEX				
CB012B012E - CB004B004E - ATEX	1 of 1	-	19 Mar 14	Coupling BSP male to BSP male Ex
CB012M016E – CB004M100E - ATEX	1 of 1	-	19 Mar 14	Coupling BSP male to Metric male Ex
CB012N012E - CB004N004E - ATEX	1 of 1	-	19 Mar 14	Coupling BSP male to NPT male Ex
CM016M016E - CM100M100E - ATEX	1 of 1	-	19 Mar 14	Coupling Metric male to Metric male Ex
CM016N012E - CM100N004E - ATEX	1 of 1	-	19 Mar 14	Coupling Metric male to NPT male Ex
CN012B012E - CN004B004E - ATEX	1 of 1	-	19 Mar 14	Coupling NPT male to BSP male Ex
CN012N012E - CN004N004E - ATEX	1 of 1	-	19 Mar 14	Coupling NPT male to NPT male Ex
PDB012E to PDB004E - ATEX	1 of 1	-	19 Mar 14	Plugs Dome Head BSP - Ex
PDM016E to PDM100E - ATEX	1 of 1	-	19 Mar 14	Ex Plugs - Metric
PHB012E – PHB004E - ATEX	1 of 1	-	19 Mar 14	Plugs Hex Head BSP - Ex
PHM016E – PHM100E - ATEX	1 of 1	-	19 Mar 14	Plugs Hex Head Metric - Ex
PHN012E – PHN004E - ATEX	1 of 1	-	19 Mar 14	Plugs Hex Head NPT - Ex
PDN012E – PDN004E - ATEX	1 of 1	-	19 Mar 14	Plugs Dome Head NPT - Ex
PSB012E-PSB004E	1 of 1	-	19 Mar 14	Stopper Plug BSP - Ex
PSB012ER-PSB004ER - ATEX				
PSM016E-PSM100E	1 of 1	-	19 Mar 14	Stopper Plug Metric - Ex
PSM016ER-PSM100ER - ATEX	4 . 6 4		40.14	Change Discription 1/ WNDT 1 AWNDT DISC
PSN012E to PSN004E	1 of 1	-	19 Mar 14	Stopper Plug 1/2"NPT to 4"NPT Plug - Ex
PSN012ER to PSN004ER - ATEX	4 . 6 4		10.14	Halan BCD Complete BCD Co. 1. 5
UB012B012E – UB004B004E - ATEX	1 of 1	-	19 Mar 14	Union BSP female to BSP female Ex
UB012N012E – UB004N004E - ATEX	1 of 1	-	19 Mar 14	Union BSP female to NPT male Ex
UM016M016E – UM100M100E - ATEX	1 of 1	-	19 Mar 14	Union Metric female to Metric female Ex

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### **Certificate Annexe**

Certificate Number: Sira 14ATEX1006X

Equipment: Threaded Adaptors, Reducers, Unions,

**Couplers and Blanking Plugs** 

Applicant: CCG Cable Terminations PTY LTD



Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
UM016B012E – UM100B004E - ATEX	1 of 1	-	19 Mar 14	Union Metric female to BSP female Ex
UM016N012E – UM100N004E - ATEX	1 of 1	-	19 Mar 14	Union Metric female to NPT female Ex
UN012B012E - UN004B004E - ATEX	1 of 1	-	19 Mar 14	Union to NPT female to BSP female Ex
UN012N012E – UN004N004E - ATEX	1 of 1	-	19 Mar 14	Union to NPT female to NPT female Ex

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