



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 06ATEX1097X** Issue: **11**

4 Equipment: **Ranges of Cable Glands Types A2F, A2E, A2FRC, A4ERC, A2F-FC, SS2K, C\*\*, E\*\* and PX\*\***

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 60079-0:2004                      EN 60079-7:2003                      EN 61241-1:2004  
EN 60079-1:2004                      IEC 61241-0:2004

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:



II 2 GD  
Ex d IIC/Ex e II  
Ex d IIC  
Ex e II  
Ex tD A21 IP66

or



I M2  
Ex d I/Ex e I  
Ex d I  
Ex e I

Note: The manufacturer may choose to include additional compliance marking

(Refer to certificate for the markings that are applicable to each gland type)

Project Number    20049  
C. Index            07

D R Stubbings BA MIET  
Certification Manager

**Sira Certification Service**

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

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Issue 11

#### 13 DESCRIPTION OF EQUIPMENT

##### General

The ranges of cable glands are metallic and intended to terminate circular armoured, unarmoured and braided cables (as defined by their type designations) into a threaded entry point within associated flameproof, increased safety or dust tight enclosures (as defined by their coding). Without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice.

##### 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. 25RE1FW.

- Alternative materials of manufacture:

Brass to BS2874:1986 Grade CuZn39Pb (CW614N)

Mild steel to BS970 Pt1:1991 Grade 220M07Pb

Stainless steel to BS970 Pt1:1991 Grades 316S11, 316S13, 316S31 or 316S33

Aluminium alloy to BS1474:1987 Grade 6082 or BS1490 Grade LM25 TF (Not Group I)

- Alternative entry component thread forms:

Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads

ET(Conduit) BS 31:1940 (1979), Table A

PG DIN 40430:1971

BSPP BS 2779:1973 class A full form for external threads

BSPTBS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A

ISOISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads

NPTANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads

NPSMANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads

The E-Type range of cable gland entry threads are to maintain compliance with the requirements of EN 60079-1:2004 Clause 5.3 Tables 3 and 4 and clause C.2.2 as applicable.

- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.






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#### Type designation A2FRC Range


Coded:  II 2 GD  
Ex d IIC/Ex e II  
Ex d IIC  
Ex e II  
Ex tD A21 IP66

The A2FRC range of cable glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a seal actuation nut and either an outer captivated or running coupling. The front entry component, fitted with an elastomeric displacement sealing ring and a carbon steel 'C' clip or pressed-over section, is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath. The outer running coupling is retained in the seal actuation nut using the carbon steel 'C' clip to allow free running thread connection to conduit.

#### Additional Specific Design options

- Alternative material of manufacture of the skid washer to be the same as the gland material.
- Alternative 'C' clip plate finish: Stainless steel  
Phosphor bronze  
Beryllium copper

#### Type designation A4ERC Range

Coded:  II 2 GD  
Ex e II  
Ex tD A21 IP66

The A4ERC range of cable glands are intended to terminate tape armour cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a front seal, a main body component, a rear seal, an actuating nut and a rear running coupling. The front entry component is intended to screw into an entry point of its associated enclosure. The seals are compressed onto the cable when the body component and actuating nut are tightened. A continuity diaphragm and skid washer are fitted behind the front seal. The outer running coupling is retained in the seal actuation nut using the carbon steel 'C' clip to allow free running thread connection to conduit.

Cable clamping is achieved with the outer seal arrangement compressed onto the outer sheath of the cable.




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Type designation A2F-FC Range

Coded:  II 2 GD  
Ex d IIC/Ex e II  
Ex d IIC  
Ex e II  
Ex tD A21 IP66

The A2F-FC range of cable glands is intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They also provide an anchor for a flexible metallic conduit which can protect the cable from damage. They consist of a male-threaded front entry component, a seal actuation nut and a conduit anchor element that screws into the inside of the conduit. The front entry component, fitted with an elastomeric displacement sealing ring is intended to screw into an entry point of its associated enclosure. The seal actuation nut threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable outer sheath. The conduit anchor is secured between the seal actuation nut and seal to form a skid washer.

The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland Size	Entry Thread	Entry thread 'B' version	Cable Outer Sheath Ø (mm)	
			Min.	Max.
16	M16 x 1.5	-	3.2	8.7
20s/16	M20 x 1.5	M25 x 1.5	3.2	8.7
20s	M20 x 1.5	M25 x 1.5	6.1	11.7
20	M20 x 1.5	M25 x 1.5	6.5	14.0
25	M25 x 1.5	M32 x 1.5	11.1	20.0
32	M32 x 1.5	M40 x 1.5	17.0	26.3
40	M40 x 1.5	M50 x 1.5	23.5	32.2
50s	M50 x 1.5	M63 x 1.5	31.0	38.2
50	M50 x 1.5	M63 x 1.5	35.6	44.1
63s	M63 x 1.5	M75 x 1.5	41.5	50.0
63	M63 x 1.5	M75 x 1.5	47.2	56.0
75s	M75 x 1.5	M90 x 2.0	54.0	62.0
75	M75 x 1.5	M90 x 2.0	61.1	68.0
90	M90 x 2.0	M100 x 2.0	66.6	80.0
100	M100 x 2.0	M115 x 2.0	76.0	91.0
115	M115 x 2.0	M130 x 2.0	86.0	98.0
130	M130 x 2.0	Not available	97.0	115.0

Note \* A2FRC and A4ERC ranges of cable glands do not consist of these sizes.



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#### Type designations SS2K & SS2KPB ranges of cable glands

Coded:



II 2 GD  
Ex d IIC/Ex e II  
Ex d IIC  
Ex e II  
Ex tD A21 IP66

or



I M2  
Ex d I/Ex e I  
Ex d I  
Ex e I

The SS2K & SS2KPB ranges of cable glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a main body component and an outer seal actuation nut. The front entry component, fitted with an elastomeric sealing ring and a Nylon 6 skid washer, is intended to screw into an entry point of its associated enclosure. The main body component, fitted with a locking ring, threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable inner sheath. The outer seal actuation nut, fitted with an elastomeric sealing ring and a Nylon 6 skid washer, threads into the main body component thereby effecting environmental sealing onto the cable outer sheath. Two versions of the outer seal nut are available to allow alternative sizes of outer sheath to be gripped.

Cable clamping is achieved with the outer seal arrangement.

The type SS2KPB front entry component being additionally fitted with a metallic continuity diaphragm and skid washer for use with lead sheathed cable.

#### Type designation SS2KTA range of cable glands

Coded:



II 2GD  
Ex e II  
Ex tD A21 IP66

The SS2KTA range of cable glands is intended to terminate tape armour cable into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice.

The devices are identical to the SS2K range of glands but with the addition of a metallic continuity diaphragm and skid washer.



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**Additional Specific Design option**

- Alternative material of manufacture of the skid washer to be the same as the gland material.
- Alternative outer seal arrangement to allow the glands to be attached to flexible conduit.

The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland size	Entry thread	Entry thread 'B' version	Cable inner seal sheath range Ø (mm)		Cable outer seal sheath range Ø (mm)		Alternative outer seal sheath range Ø (mm)	
			Min.	Max.	Min.	Max.	Min.	Max.
16	M16 x 1.5	-	3.2	8.7	3.1	8.7	6.1	11.5
20s/16	M20 x 1.5	M25 x 1.5	3.2	8.7	3.1	8.7	6.1	11.5
20s16/20s	M20 x 1.5	M25 x 1.5	3.2	8.7	6.1	11.7	9.5	15.9
20s	M20 x 1.5	M25 x 1.5	6.1	11.7	6.1	11.7	9.5	15.9
20s/20	M20 x 1.5	M25 x 1.5	6.1	11.7	6.5	14.0	12.5	20.9
20	M20 x 1.5	M25 x 1.5	6.5	14.0	6.5	14.0	12.5	20.9
20/25	M20 x 1.5	M25 x 1.5	6.5	14.0	11.1	20.0	18.2	26.2
25	M25 x 1.5	M32 x 1.5	11.1	20.0	11.1	20.0	18.2	26.2
25/32	M25 x 1.5	M32 x 1.5	11.1	20.0	17.0	26.3	23.7	33.9
32	M32 x 1.5	M40 x 1.5	17.0	26.3	17.0	26.3	23.7	33.9
32/40	M32 x 1.5	M40 x 1.5	17.0	26.3	22.0	32.2	27.9	40.4
40	M40 x 1.5	M50 x 1.5	23.5	32.2	22.0	32.2	27.9	40.4
40/50s	M40 x 1.5	M50 x 1.5	23.5	32.2	29.5	38.2	35.2	46.7
50s	M50 x 1.5	M63 x 1.5	31.0	38.2	29.5	38.2	35.2	46.7
50s/50	M50 x 1.5	M63 x 1.5	31.0	38.2	35.6	44.1	40.4	53.1
50	M50 x 1.5	M63 x 1.5	35.6	44.1	35.6	44.1	40.4	53.1
50/63s	M50 x 1.5	M63 x 1.5	35.6	44.1	40.1	50.1	45.6	59.4
63s	M63 x 1.5	M75 x 1.5	41.5	50.0	40.1	50.1	45.6	59.4
63s/63	M63 x 1.5	M75 x 1.5	41.5	50.0	47.2	56.0	54.6	65.9
63	M63 x 1.5	M75 x 1.5	47.2	56.0	47.2	56.0	54.6	65.9
63/75s	M63 x 1.5	M75 x 1.5	47.2	56.0	52.8	62.0	59.0	72.1
75s	M75 x 1.5	M90 x 2.0	54.0	62.0	52.8	62.0	59.0	72.1
75s/75	M75 x 1.5	M90 x 2.0	54.0	62.0	59.1	68.0	66.7	78.5
75	M75 x 1.5	M90 x 2.0	61.1	68.0	59.1	68.0	66.7	78.5
75/90	M75 x 1.5	M90 x 2.0	61.1	68.0	66.6	79.4	76.2	90.4
90	M90 x 2.0	M100 x 2.0	66.6	80.0	66.6	79.4	76.2	90.4
90/100	M90 x 2.0	M100 x 2.0	66.6	80.0	76.0	91.0	86.1	101.5
100	M100 x 2.0	M115 x 2.0	76.0	91.0	76.0	91.0	86.1	101.5
100/115	M100 x 2.0	M115 x 2.0	76.0	91.0	86.0	98.0	101.5	110.3
115	M115 x 2.0	M130 x 2.0	86.0	98.0	86.0	98.0	101.5	110.3
115/130	M115 x 2.0	M130 x 2.0	86.0	98.0	97.0	115.0	114.2	123.3
130	M130 x 2.0	Not available	97.0	115.0	97.0	115.0	114.2	123.3

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## SCHEDULE

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#### ii) C\*\*Type ranges of cable glands

Coded:  II 2GD  
Ex e II  
Ex tD A21 IP66

The C\*\* series Type ranges of cable glands consist of a male-threaded front entry component, which is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The front entry component to main body mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armoured or braid is effected by a combination of the front 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.

Cable clamping is achieved with the outer seal arrangement.

#### Additional Specific Design options

- The use of alternative armour clamping components. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- The use of a component having an alternative profile allowing an integral earthing facility. The type designation identifying the cable gland being fitted with this option.
- Alternative material of manufacture of the ferrule or skid washer to be the same as the gland material.
- Alternative outer seal arrangement to allow the glands to be attached to flexible conduit.

The gland and seal sizes are determined by the entry thread and cable range take sizes:



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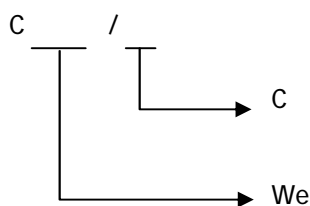
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Gland size	Entry thread	Entry thread 'B' version	Cable inner sheath Ø (mm)	SWA (mm)		SWA, STA, strip armour, pliable wire armour* & wire braid (mm)		Outer seal sheath range Ø (mm)	
				Max.	Min.	Max.	Min.	Max.	Min.
16	M16 x 1.5	-	8.7	0.9	1.00	0	1.0	6.1	11.5
20s/16	M20 x 1.5	M25 x 1.5	8.7	0.9	1.00	0	1.0	6.1	11.5
20s	M20 x 1.5	M25 x 1.5	11.7	0.9	1.25	0	1.0	9.5	15.9
20	M20 x 1.5	M25 x 1.5	14.0	0.9	1.25	0	1.0	12.5	20.9
25s	M25 x 1.5	M32 x 1.5	20.0	1.25	1.6	0	1.0	14.0	22.0
25	M25 x 1.5	M32 x 1.5	20.0	1.25	1.6	0	1.0	18.2	26.2
32	M32 x 1.5	M40 x 1.5	26.3	1.6	2.0	0	1.0	23.7	33.9
40	M40 x 1.5	M50 x 1.5	32.2	1.6	2.0	0	1.0	27.9	40.4
50s	M50 x 1.5	M63 x 1.5	38.2	2.0	2.5	0	1.0	35.2	46.7
50	M50 x 1.5	M63 x 1.5	44.1	2.0	2.5	0	1.0	40.4	53.1
63s	M63 x 1.5	M75 x 1.5	50.0	2.0	2.5	0	1.0	45.6	59.4
63	M63 x 1.5	M75 x 1.5	56.0	2.0	2.5	0	1.0	54.6	65.9
75s	M75 x 1.5	M90 x 2.0	62.0	2.0	2.5	0	1.0	59.0	72.1
75	M75 x 1.5	M90 x 2.0	68.0	2.5	3.0	0	1.0	66.7	78.5
90	M90 x 2.0	M100 x 2.0	80.0	3.0	3.5	0	1.6	76.2	90.4
100	M100 x 2.0	M115 x 2.0	91.0	3.15	4.0	0	1.6	86.1	101.5
115	M115 x 2.0	M130 x 2.0	98.0	3.15	4.0	0	1.6	101.5	110.3
130	M130 x 2.0	N / A	115.0	3.15	4.0	0	1.6	114.2	123.3

\* - 'Xe' and '2K' versions only

Type designation code



- C = Fitted with the alternative cast integral earth lug entry component.
- We = Fitted with single plain armour cone & reversible armour sleeve to suit SWA cables.
- Xe = Fitted with single grooved armour cone & reversible armour sleeve to suit STA, strip armoured, braided & pliable wire armoured cables.
- 2K = Fitted with reversible armour cone & reversible armour sleeve to suit SWA, STA, strip armoured, braided and pliable wire armoured cables.

C type glands may be fitted with armour cones with alternative diameters to allow the clamping of smaller or larger armour wires.





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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	M16 x 1.5	-	3.1	8.6	0.9	1.00	0	1.0	6.1	11.5
20s/16	M20 x 1.5	M25 x 1.5	3.1	8.6	0.9	1.00	0	1.0	6.1	11.5
20s/16/20s	M20 x 1.5	M25 x 1.5	3.1	8.6	0.9	1.25	0	1.0	9.5	15.9
20s	M20 x 1.5	M25 x 1.5	6.1	11.6	0.9	1.25	0	1.0	9.5	15.9
20s/20	M20 x 1.5	M25 x 1.5	6.1	11.6	0.9	1.25	0	1.0	12.5	20.9
20	M20 x 1.5	M25 x 1.5	6.5	13.9	0.9	1.25	0	1.0	12.5	20.9
20/25S	M20 x 1.5	M25 x 1.5	6.5	13.9	1.25	1.6	0	1.0	14.0	22.0
20/25	M20 x 1.5	M25 x 1.5	6.5	13.9	1.25	1.6	0	1.0	18.2	26.2
25s	M25 x 1.5	M32 x 1.5	11.1	19.9	1.25	1.6	0	1.0	14.0	22.0
25	M25 x 1.5	M32 x 1.5	11.1	19.9	1.25	1.6	0	1.0	18.2	26.2
25/32	M25 x 1.5	M32 x 1.5	11.1	19.9	1.6	2.0	0	1.0	23.7	33.9
32	M32 x 1.5	M40 x 1.5	17.0	26.2	1.6	2.0	0	1.0	23.7	33.9
32/40	M32 x 1.5	M40 x 1.5	17.0	26.2	1.6	2.0	0	1.0	27.9	40.4
40	M40 x 1.5	M50 x 1.5	22.0	32.1	1.6	2.0	0	1.0	27.9	40.4
40/50s	M40 x 1.5	M50 x 1.5	22.0	32.1	2.0	2.5	0	1.0	35.2	46.7
50s	M50 x 1.5	M63 x 1.5	29.5	38.1	2.0	2.5	0	1.0	35.2	46.7
50s/50	M50 x 1.5	M63 x 1.5	29.5	38.1	2.0	2.5	0	1.0	40.4	53.1
50	M50 x 1.5	M63 x 1.5	35.6	44.0	2.0	2.5	0	1.0	40.4	53.1
50/63s	M50 x 1.5	M63 x 1.5	35.6	44.0	2.0	2.5	0	1.0	45.6	59.4
63s	M63 x 1.5	M75 x 1.5	40.1	49.9	2.0	2.5	0	1.0	45.6	59.4
63s/63	M63 x 1.5	M75 x 1.5	40.1	49.9	2.0	2.5	0	1.0	54.6	65.9
63	M63 x 1.5	M75 x 1.5	47.2	55.9	2.0	2.5	0	1.0	54.6	65.9
63/75s	M63 x 1.5	M75 x 1.5	47.2	55.9	2.0	2.5	0	1.0	59.0	72.1
75s	M75 x 1.5	M90 x 2.0	52.8	61.9	2.0	2.5	0	1.0	59.0	72.1
75s/75	M75 x 1.5	M90 x 2.0	52.8	61.9	2.5	3.0	0	1.0	66.7	78.5
75	M75 x 1.5	M90 x 2.0	59.1	67.9	2.5	3.0	0	1.0	66.7	78.5
75/90	M75 x 1.5	M90 x 2.0	59.1	67.9	3.0	3.5	0	1.6	76.2	90.4
90	M90 x 2.0	M100 x 2.0	66.6	79.9	3.0	3.5	0	1.6	76.2	90.4
90/100	M90 x 2.0	M100 x 2.0	66.6	79.9	3.15	4.0	0	1.6	86.1	101.5
100	M100 x 2.0	M115 x 2.0	76.0	90.9	3.15	4.0	0	1.6	86.1	101.5
100/115	M100 x 2.0	M115 x 2.0	76.0	90.9	3.15	4.0	0	1.6	101.5	110.3
115	M115 x 2.0	M130 x 2.0	86.0	97.9	3.15	4.0	0	1.6	101.5	110.3
115/130	M115 x 2.0	M130 x 2.0	86.0	97.9	3.15	4.0	0	1.6	114.2	123.3
130	M130 x 2.0	N / A	97.0	114.9	3.15	4.0	0	1.6	114.2	123.3

\* - 'X' and 'U' variants; see below

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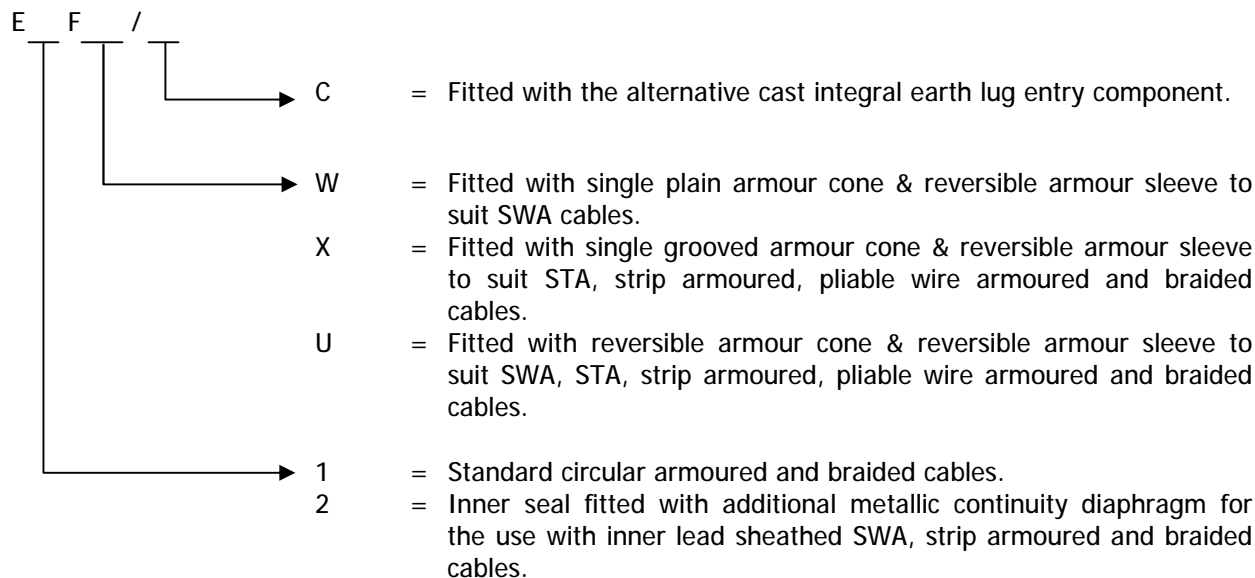


SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

Type designation code



iv) PX\*\* series-Type ranges of Compound filled barrier cable glands

Coded:  II 2 GD Ex d IIC/Ex e II Ex d IIC Ex e II Ex tD A21 IP66	and / or	I M2 Ex d I/Ex e I Ex d I Ex e I	<b>Note</b> <b>Not PXRC</b>
--	----------	---	--------------------------------

The PX\*\* series Type ranges of barrier cable glands consist of a male-threaded front entry component, fitted with a compound tube such that a spigot/combination joint is formed, which is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The compound tube is filled with a sealing compound that effects a flameproof seal around the cable cores passing through it and is mechanically retained. The front entry component to main body mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armour or braid is effected by a combination of the front entry component assembly and the different optional armour cone and reversible sleeve combinations within the main body being fastened together. An outer seal nut, containing an elastomeric displacement sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

Cable clamping is achieved with the outer seal arrangement.



**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

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Issue 11

**Additional Specific Design options**

- The use of alternative armour clamping components. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The removal of the ATEX outer seal, nut and ferrule, along with the body component manufactured without the external mating thread. The cable gland being suitable for S.W.A armoured cables and is identified within type designation coding.
- The use of the compound tube and spacer along with the manufacture of the front entry component with a female mating thread, to couple to an alternative main body, skid washer, seal and nut. The latter replacing other component parts. This variant being identified within type designation coding.
- PXSS2K range can be fitted with the outer seal nut from the PX\*\* range as an alternative.
- PX type glands may be fitted with armour cones with alternative diameters to allow the clamping of smaller or larger armour wires.
- Alternative outer seal arrangement to allow the glands to be attached to flexible conduit.
- PX2K\*\* range can be fitted with the outer seal nut assembly from the PKSS2K range as an alternative.

The gland and seal sizes are determined by the entry thread and cable range take sizes. In addition note that not all the information detailed in the table is applicable to both gland types. See individual approval drawings.

Gland size	Entry thread	Entry thread 'B' version	Max. no. of cores	Max. Ø over cores (mm)	SWA (mm)		SWA, STA, strip armour, pliable wire armour <sup>1</sup> & wire braid (mm)		PXSS2K <sup>2</sup> outer seal sheath range Ø (mm)		PX** outer seal sheath range Ø (mm)	
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20s/16	M20 x 1.5	M25 x 1.5	34	12.6	0.9	1.00	0	1.0	3.1	8.7	6.1	11.5
20s	M20 x 1.5	M25 x 1.5	34	12.6	0.9	1.25	0	1.0	6.1	11.7	9.5	15.9
20	M20 x 1.5	M25 x 1.5	34	12.6	0.9	1.25	0	1.0	6.5	14.0	12.5	20.9
20L	M20 x 1.5	M25 x 1.5	34	12.6	0.9	1.25	0	1.0	10.0	15.9	N/A	N/A
25s	M25 x 1.5	M32 x 1.5	80	17.5	1.25	1.6	0	1.0	11.1	20.0	14.0	22.0
25	M25 x 1.5	M32 x 1.5	80	17.5	1.25	1.6	0	1.0	11.1	20.0	18.2	26.2
32	M32 x 1.5	M40 x 1.5	115	23.6	1.6	2.0	0	1.0	17.0	26.3	23.7	33.9
32L	M32 x 1.5	M40 x 1.5	115	23.6	1.6	2.0	0	1.0	20.0	27.4	N/A	N/A
40	M40 x 1.5	M50 x 1.5	185	30.0	1.6	2.0	0	1.0	22.0	32.1	27.9	40.4
50s	M50 x 1.5	M63 x 1.5	274	36.6	2.0	2.5	0	1.0	29.5	38.2	35.2	46.7
50	M50 x 1.5	M63 x 1.5	343	41.0	2.0	2.5	0	1.0	35.6	44.1	40.4	53.1
63s	M63 x 1.5	M75 x 1.5	466	47.9	2.0	2.5	0	1.0	40.1	50.1	45.6	59.4
63	M63 x 1.5	M75 x 1.5	585	53.7	2.0	2.5	0	1.0	47.2	56.0	54.6	65.9
75s	M75 x 1.5	M90 x 2.0	727	59.9	2.0	2.5	0	1.0	52.8	62.0	59.0	72.1
75	M75 x 1.5	M90 x 2.0	837	64.3	2.5	3.0	0	1.0	59.1	68.0	66.7	78.5
90	M90 x 2.0	M100 x 2.0	1146	75.3	3.0	3.5	0	1.6	66.6	79.4	76.2	90.4
100	M100 x 2.0	M115 x 2.0	1480	85.6	3.15	4.0	0	1.6	80.0	90.9	86.1	101.5

<sup>1</sup> '2KX' and '2K' variants; see below.

<sup>2</sup> including PX\*\* fitted with alternative outer nut as drawing GA273

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

Type designation code

PX



- 2KW = Fitted with single plain armour cone & reversible armour sleeve to suit SWA cables.
- 2KX = Fitted with single grooved armour cone & reversible armour sleeve to suit STA, strip armoured, pliable wire armoured and braided cables.
- 2K = Gland kit provided with 2 single armour cones (From the 2KW & 2KX) and reversible armour sleeve to suit SWA, STA, strip armoured, pliable wire armoured and braided cables.
- B2KW = Fitted with single plain armour cone & reversible armour sleeve, but has no outer seal, nut or ferrule. The body is also manufactured without the external mating thread. The cable gland is suitable for SWA cables.
- SS2K = Alternative manufactured front entry component coupled to an alternative main body, skid washer, seal and nut for use with unarmoured cables.
- RC = Alternative manufactured front entry component attached to a running coupler (of the same construction as the A2FRC running coupler) and skid washer. Used with unarmoured cables in rigid conduit.
- /PB = Alternative two part cone assembly incorporating an additional metallic continuity diaphragm for the use with inner lead sheathed SWA and braided cables.



## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

**Variation 1:** This variation introduced the following changes:

- i. The recognition of an alternative, outer sealing arrangement for the C\*\*, E\*\* and PX\*\* Ranges of Cable Glands; the compression nut length and consequently body length were reduced, in addition, the internal, tapered ferrule was replaced by a flat ferrule.

**Variation 2:** This variation introduced the following changes:

- i. The brass, mild steel and stainless steel SS2K and SS2KPB glands can be used for Group I applications.
- ii. The introduction of the SS2KTA range of cable glands for use with tape armour.
- iii. The recognition of alternative armour cone diameters for the 'C\*\*', 'E\*\*' and PX types.
- iv. The removal of the manufacturer's address from the product marking.
- v. The use of the 'E\*\*', 'C\*\*' and 'PX' ranges with pliable wire armour cables.
- vi. The marking of the ranges for dust applications to EN 61241-1:2004.

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

- i. To permit the Type PX2KW, PX2KX, PXB2KW glands for Group I use.

#### **Variation 4**

This variation introduced the following changes:

- i. To permit use of an alternative setting compound the Type PX2KW, PX2KX, PXB2KW glands for Group I use.

**Variation 5:** This variation introduced the following changes:

- i. The option for the glands to be manufactured with an entry thread that is one size up from the nominal gland size.
- ii. Typographical errors were corrected
- iii. An additional M100 size was included in the PX range of cable glands.

**Variation 6:** This variation introduced the following changes:

- i. A 20s16/20s combination gland for SS2K and E type glands.
- ii. A 20/25s combination for E type glands
- iii. The use of an alternative outer seal nut on SS2K and PXSS2K type glands
- iv. The addition of the A2F-FC glands
- iv. The addition of the PXRC glands.
- v. Recognition of the alternative A2F designation 'A2E'.

**Variation 7 -** This variation introduced the following changes:

- i. To permit the introduction of the A4ERC range of cable glands.

**Variation 8 –** This variation introduced the following changes:

- i. The addition of the size 16 gland to the A2F, A2E, A2FRC, A4ERC, A2F-FC, SS2K, SS2KPB, C\*\* and E\*\* ranges.
- ii. The recognition of an alternative outer seal arrangement to allow the fitting of the SS2K, SS2KPB, C\*\*, E\*\* and PX\*\* glands to flexible conduit, including a new Special Condition For Safe use.
- iii. The inclusion of an alternative sealing material for the PX\*\* range of glands.
- iv. The introduction of an alternative skid washer to all glands covered by this certificate.

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

**Variation 9** – This variation introduced the following changes:

- i. To permit an alternative rear nut arrangement on the PX\*\* range. The existing PXSS2K nut being fitted to the PX\*\* range. The table in section iv) PX\*\* series-Type ranges of Compound filled barrier cable glands, has been modified to reflect the changes by including Note 2.

#### 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 September 2006	R51A14508A	The release of the prime certificate.
1	23 January 2007	R51M15819A	The introduction of Variation 1.
2	22 June 2007	R51A14508C R51M16086A R51M16082A R51M14895A R51M16257A R51A14508B	This Issue covers the following changes: <ul style="list-style-type: none"><li>• All previously issued certification was rationalised into a single certificate Issue 2, Issues 0 and 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as actual documents.</li><li>• Report number R51A14508A was replaced by Report number R51A14508C, the product description was amended accordingly.</li><li>• The introduction of Variation 2.</li></ul>
3	30 August 2007	N/A	The description of the E** Range of Cable Glands was amended to include the 25/32 size originally omitted and the correction of the Ex tD marking.
4	12 November 2007	R59M17052B	The introduction of Variation 3, note that report R51M14895A is no longer required.
5	18 December 2007	-	Removal of Category 3 marking.
6	10 March 2008	R59M16744A	This Issue covers the following changes: <ul style="list-style-type: none"><li>• The introduction of Variation 4.</li><li>• The correction of the certificate history.</li></ul>
7	29 April 2008	R51A18210A R59M17351A	The introduction of Variation 5.
8	20 November 2008	R59M18794A	The introduction of Variation 6.
9	12 January 2009	R59M19183A	The introduction of Variation 7.
10	19 November 2009	R20049A	The introduction of Variation 8.
11	28 April 2010	R22120A/00	The introduction of Variation 9.



## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 All body components of the C\*\*-Type and E\*\*-Type Ranges shall be fully tightened using all available threads of engagement until against their adjoining component part shoulder to maintain Ingress protection rating IP66.
- 15.2 The E\*\*-Type Ranges of cable glands shall not be used to terminate on braided cables in group I applications.
- 15.3 The cable gland ranges shall only be used where the temperature, at the point of entry, is in the following ranges:
- |   |  |
|---|--|
| Type A2F, A2E ranges of cable glands: -60°C to +130°C | Type C** range of cable glands: -60°C to +130°C                    |
| Type A2FRC ranges of cable glands: -60°C to +130°C    | Type E** ranges of cable glands: -60°C to +130°C                   |
| Type A2F-FC ranges of cable glands: -60°C to +130°C   | Type PX** ranges of cable glands: -60°C to +100°C compound filled. |
| Type SS2K ranges of cable glands: -60°C to +130°C     | Type PX** ranges of cable glands: -60°C to +85°C resin filled.     |
| Type SS2KPB ranges of cable glands: -60°C to +130°C   | Type A4ERC range of cable glands: -60°C to +130°C                  |
- 15.4 All ranges of cable glands fitted with flameproof elastomeric seals are certified with one specific size of FLP sealing ring per gland size as supplied.
- 15.5 The C\*\*-Type and E\*\*- Type and PX\*\*- Type Ranges used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
- 15.6 The A2F, A2E, SS2K & SS2KPB size 20s/16 cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
- 15.7 The entry component threads may need additional sealing to maintain the ingress protection rating as applicable to the associated equipment in which it will be attached.
- 15.8 The Type PXB2KW gland is to be protected from hydraulic fluids, oils, and greases when applied for Group I use.
- 15.9 When the A2F, A2E, A2FRC, A2F-FC, SS2K, SS2KPB, Type C\*\*, Type E\*\* and Type PX\*\* ranges of 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. 32BE1FW1RA, they shall not be used with any adaptor device.
- 15.10 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.



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 06ATEX1097X  
Issue 11

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.

# Certificate Annexe

Certificate number: Sira 06ATEX1097X

Applicant: CMP Products Limited

Equipment: Ranges of Cable Glands Types A2F, A2E, A2FRC, A4ERC, A2F-FC, SS2K, C\*\*, E\*\* and PX\*\*



Issue 0 and 1 - The drawings associated with this Issue were rationalised by those listed in Issue 2.

## Issue 2

Drawing No.	Sheets	Rev.	Date	Description
GA169	1 of 1	03	18 Jun 07	CWe General arrangement & marking
GA170	1 of 1	03	18 Jun 07	CXe General arrangement & marking
GA171	1 of 1	03	18 Jun 07	E1FW & E2FW General arrangement & marking
GA174	1 of 1	03	18 Jun 07	C2K General arrangement & marking
GA175	1 of 1	02	18 Jun 07	PX2K General arrangement & marking
GA176	1 of 1	03	18 Jun 07	A2F General arrangement & marking
GA177	1 of 1	02	18 Jun 07	A2FRC General arrangement & marking MISSING
GA178	1 of 1	03	18 Jun 07	PX2KW General arrangement & marking
GA179	1 of 1	02	18 Jun 07	PX2KX General arrangement & marking
GA181	1 of 1	02	18 Jun 07	PXB2KW General arrangement & marking
GA183	1 of 1	04	18 Jun 07	PXSS2K General arrangement & marking
GA184	1 of 1	05	18 Jun 07	SS2K General arrangement
GA185	1 of 1	03	18 Jun 07	E1FX, E2FX & E1FT General arrangement & marking
GA186	1 of 1	02	18 Jun 07	E1FU & E2FU General arrangement & marking
MP888	1 of 1	05	06 Jun 07	Manufacturing tolerances for non specified dimensions
SCH0143	1 of 1	01	26 Jun 01	Optional O-ring face seal groove dimensions
SCH0208	1 of 1	01	29 Jan 03	PX PB armour cone dimensions
SCH0234	1 of 1	02	06 Jun 07	ATEX inner seal operational details
SCH0235	1 of 1	02	25 May 07	Modified armour clamp operational details
SCH0242	1 of 1	08	07 Mar 07	ATEX outer seal operational details
SCH0245	1 of 1	P6	02 Jun 06	PX & PXSS2K entry component assembly details
SCH0246	1 of 1	02	18 Jun 07	PXSS2K & SS2K main body and outer seal assembly details
SCH0247	1 of 1	P6	02 Jun 06	PX armour clamp details
SCH0250	1 of 1	P6	02 Jun 06	C** & E** optional CIEL entry body feature

Issue 3 - No new drawings were introduced.

## Issue 4

Drawing No.	Sheet	Issue	Date	Description
GA178	1 of 1	05	18 Oct 07	General Arrangement – PX2KW Gland
GA179	1 of 1	04	18 Oct 07	General Arrangement – PX2KX Gland
GA181	1 of 1	04	18 Oct 07	General Arrangement – PXB2KW Gland

Issue 5 - No new drawings were introduced.

## Issue 6

Drawing No.	Sheet	Issue	Date	Description
GA175	1 of 1	03	26 Oct 07	General Arrangement – PX2K Gland

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# Certificate Annexe

Certificate number: Sira 06ATEX1097X

Applicant: CMP Products Limited

Equipment: Ranges of Cable Glands Types A2F, A2E, A2FRC, A4ERC, A2F-FC, SS2K, C\*\*, E\*\* and PX\*\*



## Issue 7

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GA169	1 of 1	04	30 Apr 08	CWe General arrangement & marking
GA170	1 of 1	04	30 Apr 08	CXe General arrangement & marking
GA171	1 of 1	04	30 Apr 08	E1FW & E2FW General arrangement & marking
GA174	1 of 1	04	30 Apr 08	C2K General arrangement & marking
GA175	1 of 1	06	30 Apr 08	PX2K General arrangement & marking
GA176	1 of 1	04	30 Apr 08	A2F General arrangement & marking
GA177	1 of 1	03	30 Apr 08	A2FRC General arrangement & marking
GA178	1 of 1	07	30 Apr 08	PX2KW General arrangement & marking
GA179	1 of 1	06	30 Apr 08	PX2KX General arrangement & marking
GA181	1 of 1	06	30 Apr 08	PXB2KW General arrangement & marking
GA183	1 of 1	06	30 Apr 08	PXSS2K General arrangement & marking
GA184	1 of 1	06	30 Apr 08	SS2K General arrangement
GA185	1 of 1	04	30 Apr 08	E1FX, E2FX & E1FT General arrangement & marking
GA186	1 of 1	03	30 Apr 08	E1FU & E2FU General arrangement & marking
SCH0247	1 of 1	00	30 Apr 08	PX Armour clamping details
SCH0246	1 of 1	03	30 Apr 08	PXSS2K & SS2K Outer seal details
SCH0245	1 of 1	00	30 Apr 08	PX & PXSS2K Entry item details
SCH0208	1 of 1	02	30 Apr 08	PX PB Armour cone

## Issue 8

Drawing No.	Sheets	Rev.	Date	Description
GA171	1 of 1	05	23 Jul 08	E1FW & E2FW General arrangement & marking
GA174	1 of 1	05	23 Jul 08	C2K General arrangement & marking
GA175	1 of 1	09	17 Sep 08	PX2K General arrangement & marking
GA178	1 of 1	09	17 Sep 08	PX2KW General arrangement & marking
GA179	1 of 1	08	17 Sep 08	PX2KX General arrangement & marking
GA181	1 of 1	08	17 Sep 08	PXB2KW General arrangement & marking
GA183	1 of 1	08	17 Sep 08	PXSS2K General arrangement & marking
GA184	1 of 1	07	23 Jul 08	SS2K General arrangement
GA185	1 of 1	05	23 Jul 08	E1FX, E2FX & E1FT General arrangement & marking
GA186	1 of 1	04	23 Jul 08	E1FU & E2FU General arrangement & marking
SCH0247	1 of 1	01	22 Jul 08	PX Armour clamping details
GA0203	1 of 1	03	17 Sep 08	PXRC General arrangement & marking
GA0208	1 of 1	00	29 Sep 08	A2F-FC General arrangement & marking
GA215	1 of 1	00	18 Nov 08	A2E General Arrangement

## Issue 9

Drawing No.	Sheets	Rev.	Date	Description
GA0121	1 of 1	01	20 Nov 08	A4ERC general arrangement and marking.

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# Certificate Annexe

Certificate number: Sira 06ATEX1097X

Applicant: CMP Products Limited

Equipment: Ranges of Cable Glands Types A2F, A2E, A2FRC, A4ERC, A2F-FC, SS2K, C\*\*, E\*\* and PX\*\*



## Issue 10

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GA169	1 of 1	05	10 Nov 09	CWe General arrangement and marking
GA170	1 of 1	05	10 Nov 09	CXe General arrangement and marking
GA171	1 of 1	06	10 Nov 09	E1FW & E2FW General arrangement and marking
GA174	1 of 1	06	10 Nov 09	C2K General arrangement and marking
GA175	1 of 1	10	10 Nov 09	PX2K General arrangement & marking
GA176	1 of 1	05	10 Nov 09	A2F General arrangement and marking
GA177	1 of 1	04	10 Nov 09	A2FRC General arrangement and marking
GA178	1 of 1	10	10 Nov 09	PX2KW General arrangement & marking
GA179	1 of 1	09	10 Nov 09	PX2KX General arrangement & marking
GA181	1 of 1	09	10 Nov 09	PXB2KW General arrangement & marking
GA183	1 of 1	09	10 Nov 09	PXSS2K General arrangement & marking
GA184	1 of 1	08	10 Nov 09	SS2K General arrangement and marking
GA185	1 of 1	06	10 Nov 09	E1FX, E2FX & E1FT General arrangement and marking
GA186	1 of 1	05	10 Nov 09	E1FU & E2FU General arrangement and marking
GA0208	1 of 1	01	10 Nov 09	A2-FC General arrangement and marking
GA212	1 of 1	02	10 Nov 09	A4ERC General arrangement and marking
GA215	1 of 1	01	10 Nov 09	A2E range of cable glands
SCH0235	1 of 1	04	10 Nov 09	Modified armour clamp
SCH0242	1 of 1	09	10 Nov 09	Outer seal arrangement
GA256	1 of 1	00	10 Nov 09	Outer seal nut adaptor details
SCH0250	1 of 1	01	11 Nov 09	C** & E** optional CIEL entry body feature

## Issue 11

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GA273	1 of 1	00	10 Apr 10	PX** with PXSS2K rear nut arrangement

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