



1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 01ATEX1032X** Issue: **2**

4 Equipment: **Excel and Excel Plus Range of Cable Glands**

5 Applicant: **Prysmian Cables & Systems Limited
(Using the registered trademark of BICON)**

6 Address: Components Unit
Hall Lane
Prescot
Merseyside L34 5UR

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

8 CSA Group Netherlands B.V., Notified Body Number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 50014:1997 (amendments A1-A2)
EN 50281-1-1:1998

EN 50018:2000

EN 50019:2000

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-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

EEx de IIC or EEx d IIC or EEx e II or EEx d IIC/EEx e II

Project Number 3735

Signed: 
Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The Excel and Excel Plus Range of Cable Glands are designed to allow the entry of circular armoured, non-armoured or braided cables into flameproof or reased safety enclosures without compromising the explosion protection provided by these enclosures in accordance with relevant codes of practice.

The Excel variants comprise a gland body, an inner seal, an armour cone, a lock ring, a skid washer, an outer seal and a seal housing. The gland body is threaded on either side of a hexagonal shoulder; one thread is used to screw into the entry of its associated enclosure, the other is fitted to the seal housing. The gland body contains a polychloroprene inner "diaphragm" seal. As the cable passes through this device, it is forced to expand, making a seal to the cable. The armour cone then forms an arrangement with the armour clamping ring, as the gland body and the seal are tightened together, this grips the armour or braid of the cable. The seal housing contains a skid washer manufactured from brass, nylon or fibre and a compression (displacement) seal manufactured from polychloroprene or silicone. When the seal housing is tightened onto the gland body, this effects sealing onto the outer sheath of the cable.

The Excel Plus variants differ in that the armour clamping ring is replaced with an armour ring and a lock ring. Also, the armour cone has a shallower angle and clamping of the armour is effected by the additional armour ring onto which the lock ring is tightened. The length of the gland body, the armour cone, and the seal housing are reased to accommodate these differences.

The metallic components are manufactured from brass to BS 2874:1986 grades CZ121 or CZ122 or better.

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

Gland size	Entry thread BS 3643:1981, (1988) (medium fit)	Cable diameter (mm)			
		Inner sheath seal		Outer sheath seal	
		Min	Max	Min	Max
M16	M16 x 1.5	4.0	9.0	8.0	16.0
M20ss	M20 x 1.5	4.0	9.0	8.0	16.0
M20s	M20 x 1.5	7.0	12.0	9.0	16.0
M20	M20 x 1.5	8.0	14.4	11.5	21.0
M25	M25 x 1.5	10.5	20.2	18.5	27.5
M32	M32 x 1.5	15.5	26.5	21.0	34.0
M40	M40 x 1.5	23.0	32.5	31.0	41.5
M50	M50 x 1.5	28.5	44.5	36.0	52.5
M63	M63 x 1.5	44.0	56.5	50.0	65.5
M75	M75 x 1.5	53.0	68.5	59.0	78.0



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Design Options:

Alternative metallic materials of manufacture:

Mild Steel to BS 970:Part 1:1991

Stainless Steel to BS 970:Part 4:1987

Aluminium to BS 1471:1972 or BS 1474:1987 grade 6082 T6 or better

All metallic materials may additionally be surface coated to limit any electrolytic reaction between dissimilar materials

Alternative entry threads:

These are entry threads that are within the dimensional parameters of the gland body and maintain compliance with the requirements of clause 5.3 of EN 50018:2000.

Alternative Profiles:

Alternative profiles of construction of the seal housing and gland body components may be used, however, the minimum wall sections, the number of threads engaged and the thread engagement length are all maintained.

Variation 1 - This variation introduced the following changes:

i. A change of the Applicant's name on the certificate:

From:

Pirelli Cables Limited

(Using the registered trademark of BICON)

To:

Prysmian Cables & Systems Limited

(Using the registered trademark of BICON)

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	06 April 2001	R51A7476A	The release of the prime certificate.
1	16 May 2006	R51A14278A	The introduction of Variation 1.
2	15th October 2019	3735	This Issue covers the following changes: - 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 documents in this format. - EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU.



SCHEDULE

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Issue	Date	Report no.	Comment
			(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.) • The transfer of certificate Sira 01ATEX1032X from Sira Certification Service to CSA Group Netherlands B.V..

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 When used with cables that do not rely on the armour locking arrangements, the glands shall only be used for fixed installations and the user shall ensure that the cable is adequately clamped.
- 15.2 The non-metallic gland seals have a service temperature range of -20°C to +90°C, therefore the glands shall only be used with equipment where the surface temperature, at the point of mounting, does not exceed this range.

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.

Certificate Annexe



Certificate Number: Sira 01ATEX1032X

Equipment: Excel and Excel Plus Range of Cable Glands

Applicant: Prysmian Cables & Systems Limited
(Using the registered trademark of BICON)

Issue 0

Drawing	Sheets	Rev.	Date	Title
SIRA 0002	1 of 1	1	27 Feb 01	ATEX DUAL APPROVAL FOR EEx d IIC and EEx e II OF THE 'EXCEL' and 'EXCEL PLUS' CABLE GLANDS
SIRA41855	1 of 1	1	27 Feb 01	'EXCEL' and 'EXCEL PLUS' SEAL HOUSING ALTERNATIVE
SIRA41750	1 of 1	1	27 Feb 01	'EXCEL' and 'EXCEL PLUS' GLAND SKID WASHERS
SIRA41650	1 of 1	1	27 Feb 01	'EXCEL' and 'EXCEL PLUS' GLAND OUTER SEALS
SIRA41450	1 of 1	1	27 Feb 01	'EXCEL' ARMOUR CLAMPING RING
SIRA41451	1 of 1	1	27 Feb 01	'EXCEL PLUS' LOCK RING
SIRA41452	1 of 1	1	27 Feb 01	'EXCEL PLUS' ARMOUR RING
SIRA41351	1 of 1	1	27 Feb 01	'EXCEL' and 'EXCEL PLUS' ARMOUR CONE
SIRA41150	1 of 1	1	27 Feb 01	'EXCEL' and 'EXCEL PLUS' INNER DIAPHRAGM SEAL
SIRA43050	1 of 1	1	27 Feb 01	'EXCEL' GLAND BODY
SIRA43113	1 of 1	1	27 Feb 01	'EXCEL PLUS' GLAND BODY

Issue 1 (No new documents were introduced)

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