



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 08ATEX1242** Issue: **1**

4 Equipment: **Range of Cable Glands for Stainless Steel Sheathed Mineral Insulated Cable**

5 Applicant: **H & B Sensors Limited**

6 Address: **Odyssey House  
Durban Road  
Bognor Regis  
West Sussex PO22 9RH  
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 60079-0:2006                      EN 60079-1:2007                      EN 60079-31:2009  
EN 60079-0:2009 was used for reference in respect of marking and general requirements for dust.

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 2GD  
Ex db IIC & Ex tb IIIC

Project Number    26631  
C. Index            07

C Ellaby  
Deputy Certification Manager

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**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

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**13 DESCRIPTION OF EQUIPMENT**

The cable glands are intended to terminate circular stainless steel sheathed mineral insulated cable, into enclosures without compromising the explosion protection provided by the enclosures in accordance with the relevant codes of practice. They are manufactured from stainless steel to BS970 pt1 Grade 316 and consist of a body, tubing nut and olive. The body has a male-threaded, front entry that is intended to screw into an entry point of its associated enclosure, a hexagonal centre portion that is used for tightening and a male threaded spigot at back end that attaches to the tubing nut. The olive fits between the body and the tubing nut and, as the gland is tightened together, compresses onto the cable sheath providing both sealing and clamping.

**Design Type being based upon cable size and entry thread spigot size**

Gland type no.	1	2	3	4	5	6	7	8	9	10	11	12
Thread size & type	¼" BSP	M16 x 1.5	½" NPT	½" BSP	M20 x 1.5	¾" NPT	¼" BSP	½" NPT	½" BSP	M20 x 1.5	¾" NPT	M16 x 1.5
Cable Dia.	3.0 ±0.03 mm						6.0 ±0.06 mm					
Sheath Thickness	0.3 mm Minimum						0.6 mm Minimum					

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

i. The addition of the following sizes and thread forms to the range of cable glands:

Gland Type No	19	22	25	28	31	34	37	40
Thread size & type	¼" NPT	¾" BSP	1" BSP	1" NPT	¼" BSPT	½" BSPT	¾" BSPT	1" BSPT
Cable Dia.	3.0 ±0.03 mm							
Sheath Thickness	0.3 mm minimum							

Gland Type No	21	24	27	30	33	36	39	42
Thread size & type	¼" NPT	¾" BSP	1" BSP	1" NPT	¼" BSPT	½" BSPT	¾" BSPT	1" BSPT
Cable Dia.	6.0 ±0.06 mm							
Sheath Thickness	0.6 mm minimum							

ii. The introduction of a range of glands having the following sizes and thread forms to accommodate 4.5 mm diameter cable:

Gland Type No	13	14	15	16	17	18
Thread size & type	¼" BSP	½" BSP	½" NPT	¾" NPT	M16 x 1.5	M20 x 1.5
Cable Dia.	4.5 ±0.045 mm					
Sheath Thickness	0.45 mm minimum					

Gland Type No	20	23	26	29	32	35	38	41
Thread size & type	¼" NPT	¾" BSP	1" BSP	1" NPT	¼" BSPT	½" BSPT	¾" BSPT	1" BSPT
Cable Dia.	4.5 ±0.045 mm							
Sheath Thickness	0.45 mm minimum							

iii. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, documents EN 61241-0:2006, EN 61241-1:2006 and IEC 60079-0:2007, which were previously listed in Section 9, were replaced by EN 60079-31: 2009 and EN 60079-0:2009 which was used for reference in respect of marking and the general requirements associated with the use of the equipment in potentially explosive dust atmospheres.

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**Sira Certification Service**

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**SCHEDULE**

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Issue 1

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	21 November 2007	R51A17005A	The release of the prime certificate.
1	26 January 2012	R26631A/00	The introduction of Variation 1.

**15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)**

None

**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.

# Certificate Annexe

Certificate Number: Sira 08ATEX1242  
Equipment: Range of Cable Glands for Stainless Steel Sheathed Mineral Insulated Cable  
Applicant: H & B Sensors Limited



## Issue 0

Number	Sheet	Rev.	Date (Sira stamp)	Description
HBS/4/6480	1 of 2	A	13 Nov 08	Body compression fittings
HBS/4/6480	2 of 2	A	13 Nov 08	Body compression fittings
HBS/4/6481	1 of 1	A	13 Nov 08	Tubing nuts
HBS/4/6482	1 of 1	A	13 Nov 08	Compression olives

## Issue 1

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
HBS/4/6481	1 of 1	B	16 Jan 12	Tubing Nuts [For 3 mm & 6 mm diameter cables]
HBS/4/6482	1 of 1	B	16 Jan 12	Compression Olive Rings [For 3 mm & 6 mm diameter cables]
HBS/4/7524	1 of 1	A	16 Jan 12	Body Compression Fittings [Gland Types 13 – 18]
HBS/4/7525	1 of 1	B	16 Jan 12	Tubing Nuts [Gland Types 13 – 18]
HBS/4/7526	1 of 1	B	16 Jan 12	Compression Olive Rings [Gland Types 13 – 18]
HBS/4/7527	1 of 1	A	18 Jan 12	Body Compression Fittings ¼" NPT[Gland Types 19 - 21]
HBS/4/7528	1 of 1	A	18 Jan 12	Body Compression Fittings ¾" BSP[Gland Types 22 - 24]
HBS/4/7529	1 of 1	A	18 Jan 12	Body Compression Fittings 1" BSP[Gland Types 25 - 27]
HBS/4/7530	1 of 1	A	18 Jan 12	Body Compression Fittings 1" NPT[Gland Types 28 - 30]
HBS/4/7531	1 of 1	A	18 Jan 12	Body Compression Fittings ¼" BSPT[Gland Types 31 - 33]
HBS/4/7532	1 of 1	A	18 Jan 12	Body Compression Fittings ½" BSPT [Gland Types 34 - 36]
HBS/4/7533	1 of 1	A	18 Jan 12	Body Compression Fittings ¾" BSPT [Gland Types 37 - 39]
HBS/4/7534	1 of 1	A	18 Jan 12	Body Compression Fittings 1" BSPT [Gland Types 40 - 42]

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