



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 07ATEX2221** Issue: **2**

4 Equipment: **SELB, DELB, DELP and CLC Load Cells**

5 Applicant: **Elite Transducers Limited**

6 Address: **6 Zephyr House
Calleva Park
Aldermaston
Berkshire RG7 8JN
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 61241-0: 2006
EN 60079-11: 2007 EN 61241-1:2004
EN 60079-26: 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 1GD
Ex ia IIC T6
Ex tD A20 IP68 T85°C
(-20°C ≤ T_a ≤ +60°C)

D R Stubbings
Certification Manager

Project Number 52A18137
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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

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13 DESCRIPTION OF EQUIPMENT

The SELB, DELB, DELP and CLC Load Cells are designed to be fitted into equipment such as weighing machines to measure the load applied to them. The load cells comprise a stainless steel block, fitted within recesses in this block are either one or two strain gauge arrangements, optional nickel resistors, terminal boards and amplifier PCBs. The electrical devices are encapsulated and sealed within the block by a welded stainless steel cover. An integral cable with a maximum length of 30 m permits connection to the load cell. An alternative version permits the amplifier board to be fully encapsulated in a steel enclosure that may be fitted external to the load cell. The following versions of the load cell are permitted and all have the safety description specified below:

Model	Description	Type	Description	Amplifier	Safety description
SELB	Single Ended Load Beam	RO	Rationalised Output	No	Ui = 28 V Pi = 1.3 W Ii = 300mA Ci = 0.04 µF Li = 284 µH
SELB	Single Ended Load Beam	RI	Rationalised Input	No	
DELB	Double Ended Load Beam	RO	Rationalised Output	No	
DELB	Double Ended Load Beam	RI	Rationalised Input	No	
DELP	Double Ended Load Pin	EGW	Externally Gauged, Welded	No	
DELP	Double Ended Load Pin	IGP	Internally Gauged, Potted	No	
DELP	Double Ended Load Pin	IGP	Internally Gauged, Potted	Yes	
CLC	Compression Load Cell	RO	Rationalised Output	No	
CLC	Compression Load Cell	RO	Rationalised Output	Yes	

Each model may vary, within defined limits, in size and shape to cover a variety load capacities. Additional, mechanical attachments may be added to create loading assemblies.

Variation 1 - This variation introduced the following changes:

- i. An alternative version of the DELP-IGP-AMP Load Cell was recognised, this device has a plug connector in place of the integral cable and is designated the DELP-IGP-AMP-C Load Cell.
- ii. The use of an alternative cable was permitted, this cable may be used with all versions of the Load Cells.

Variation 2 - This variation introduced the following changes:

- i. Specification of the maximum input current applicable to all products.
- ii. Alternative versions of the load cells:

Model	Description	Type	Description	Amp	Safety description
DELP	Double Ended Load Pin	DS1950-TB	Procon Triple Bridge	No	Ui = 28 V Pi = 1.3 W Ii = 300mA Ci = 0.04 µF Li = 284 µH
DELP	Double Ended Load Pin	DB	Double Bridge	No	
DELP	Double Ended Load Pin	DB + Amp	Double Bridge	Yes	
SLL	Stainless Load Link	SLL	Tension Link	No	
SLL	Stainless Load Link	SLL + AMP	Tension Link	Yes	



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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	4 January 2008	R52L16503A	The release of the prime certificate.
1	1 May 2008	R52A18137B	The introduction of Variation 1.
2	30 April 2010	R21680A/00	The introduction of Variation 2

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 07ATEX2221
Equipment: SELB, DELB, DELP and CLC Load Cells
Applicant: Elite Transducers Limited



Issue 0

Number	Sheet	Rev.	Date (Sira stamp)	Description
10005-GA-30	1 of 1	B	10 Oct 07	SELB Ro style G.A.
10006-GA-30	1 of 1	B	10 Oct 07	SELB Ri style G.A.
10031-SK-30	1 of 1	B	10 Oct 07	SELB typical dimensions
10010-GA-30	1 of 1	B	10 Oct 07	DELB Ro style G.A.
10032-SK-30	1 of 1	B	10 Oct 07	DELB Ro typical dimensions
10020-GA-30	1 of 1	B	10 Oct 07	DELB Ri style G.A.
10030-SK-30	1 of 1	B	10 Oct 07	DELB Ri typical dimensions
10033-SK-30	1 of 1	A	10 Oct 07	DELB Ro & Ri typical dimensions
10014-GA-30	1 of 1	C	10 Oct 07	DELP EGW style G.A.
10009-GA-30	1 of 1	C	10 Oct 07	DELP IGP style G.A.
10024-GA-30	1 of 1	B	10 Oct 07	DELP IGP AMP style G.A.
10029-SK-30	1 of 1	B	10 Oct 07	DELP EGW & IGP/AMP typical dimensions
10038-GA-30	1 of 1	A	10 Oct 07	CLC style G.A.
10036-GA-30	1 of 1	A	10 Oct 07	CLC AMP style G.A.
10037-OL-40	1 of 1	A	10 Oct 07	CLC AMP typical dimensions
10021-CD-30	1 of 1	B	10 Oct 07	Amplifier PCB Schematic
PCB-333IS	1 & 2	B	26 Oct 07	Amplifier PCB BOM
10034-OL-40	1 of 1	A	10 Oct 07	2 Wire Amplifier Box Mounted
10007-CSP-40	1 of 1	D	26 Oct 07	Cable Specification
10008-CSP-40	1 of 1	D	26 Oct 07	Cable Specification
10028-CSP-40	1 of 1	A	10 Oct 07	Cable Specification
10011-LA-40	1 of 1	G	26 Oct 07	Certification Label
10012-LA-40	1 of 1	G	26 Oct 07	Certification Label
10039-LA-40	1 of 1	A	10 Oct 07	Certification Label – Amplifier Box

Issue 1

Number	Sheet	Rev.	Date (Sira stamp)	Description
10005-GA-30	1 of 1	C	25 Apr 08	SELB Ro style G.A.
10006-GA-30	1 of 1	C	25 Apr 08	SELB Ri style G.A.
10009-GA-30	1 of 1	D	25 Apr 08	DELP IGP style G.A.
10010-GA-30	1 of 1	C	25 Apr 08	DELB Ro style G.A.
10014-GA-30	1 of 1	D	25 Apr 08	DELP EGW style G.A.
10020-GA-30	1 of 1	C	25 Apr 08	DELB Ri style G.A.
10024-GA-30	1 of 1	D	25 Apr 08	DELP IGP AMP style G.A.
10036-GA-30	1 of 1	B	25 Apr 08	CLC AMP style G.A.
10038-GA-30	1 of 1	B	25 Apr 08	CLC style G.A.
10044-GA-30	1 of 1	B	25 Apr 08	DELP IGP AMP C style G.A.
10028-CSP-40	1 of 1	B	25 Apr 08	Cable Specification

Issue 2

Number	Sheet	Rev.	Date (Sira stamp)	Description
10196-GA-30	1 of 2	G	28 Mar 10	DELP Triple Bridge – General Assy
10196-GA-30	2 of 2	G	28 Mar 10	DELP Triple Bridge – General Assy
10229-SA-30	1 of 1	A	13 Nov 09	Gland end cover
10232-SA-30	1 of 1	B	19 Nov 09	Terminal Board Sub-Assy

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Number	Sheet	Rev.	Date	Description
			(Sira stamp)	
10198-LA-40	1 of 1	C	16 Mar 10	Certification Label details
10197-GA-30	1 of 2	F	28 Mar 10	DELP Dual Bridge – General Assy
10197-GA-30	2 of 2	F	28 Mar 10	DELP Dual Bridge – General Assy
10254-GA-30	1 of 2	C	23 Feb 10	DELP Dual Bridge Amp – General Assy
10254-GA-30	2 of 2	C	23 Feb 10	DELP Dual Bridge Amp – General Assy
10199-LA-40	1 of 1	C	16 Mar 10	Certification Label
10233-CSP-40	1 of 1	B	11 Feb 10	Type Polyurethane Cable Spec
10258-OL-30	1 of 1	A	18 Feb 10	Type SLL
10255-GA-30	1 of 2	A	01 Feb 10	Type SLL – General Assy
10255-GA-30	2 of 2	A	01 Feb 10	Type SLL – General Assy
10259-OL-30	1 of 1	A	18 Feb 10	Type SLL + AMP
10257-GA-30	1 of 2	A	18 Feb 10	Type SLL + AMP – General Assy
10257-GA-30	2 of 2	A	18 Feb 10	Type SLL + AMP – General Assy
10011-LA-40	1 of 1	H	16 Mar 10	Certification Label
10012-LA-40	1 of 1	H	16 Mar 10	Certification Label

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