



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 09ATEX2113** Issue: **3**

4 Equipment: **Tuff Personal Air Sampler**

5 Applicant: **Casella CEL**

6 Address: **Regent House
Wolseley Road
Kempston
Bedford MK42 7JY
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 60079-0:2009

EN 60079-11:2007

EN 60079-26:2007

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.

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:



I M1
Ex ia I Ma
Ta = -20°C to +41°C

or



II 1G
Ex ia IIB T3 Ga
Ta = -20°C to +41°C

Project Number 30543

P J Walsh
Technical Advisor

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 09ATEX2113
Issue 3

13 DESCRIPTION OF EQUIPMENT

The Casella Tuff Pump is a personal air sampling pump typically used to take samples of airborne materials or toxic contaminants. It is a battery-powered self-contained device, within an anti-static enclosure that provides a controlled air flow rate (approximately 0.5 to 5 litre/min) such that a known volume of air is passed through a passive sampling head and filter medium. Materials collected onto the filter substrate can be subjected to mass or chemical analysis in a laboratory in order to establish a worker's exposure to potentially hazardous materials. Sampling pumps are typically worn on the user's belt and are connected to the sampling head via a short length of tube.

The maximum charging voltage and current are 8.0 V and 561 mA respectively from an approved Casella charger. Charging is only permitted when the equipment is in the non-hazardous area.

Variation 1 - This variation introduced the following change:

- i. The information shown on the belt clip labels was expanded to include marking also displayed on the battery pack labels, the new labels also show other certification information not ratified by Sira.

Variation 2 - This variation introduced the following change:

- i. The use of an alternative LCD display, Model Type FG1003201-FENN, manufactured by Future S&T (Shenzhen) Co. Ltd., was permitted.

Variation 3 - This variation introduced the following change:

- i. The internal flow sensing method has been modified. These are mechanical changes which involves the fitting of a silicone rubber damper plus a plastic flow sensing element.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	17 March 2010	R52A18729A	The release of the prime certificate.
1	31 January 2011	R23799A/00	The introduction of Variation 1.
2	22 March 2011	R24470A/00	The introduction of Variation 2.
3	09 May 2013	R30543A/00	The introduction of Variation 3.

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.



SCHEDULE

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Sira 09ATEX2113
Issue 3

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 This certificate relies on the following previously certified product. When used as part of the Tuff Personal Air Sampler, the key attributes listed in the table below shall still be maintained by their original certificate.

Description	Certificate number	Key attributes
I S Fusion ISF001 fuse	IECEX SIR 07.0050U Sira 05ATEX2274U	Ex ia I Ex ia II T _a = -50°C to +80°C

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Certificate Annexe

Certificate Number: Sira 09ATEX2113
Equipment: Tuff Personal Air Sampler
Applicant: Casella CEL



Issue 0

Drawing No.	Sheets	Rev	Date (Sira stamp)	Title
01-182157B-IS(SIRA)	1 of 1	01	04 Mar 10	Pump motor specification
02-197011C-IS(SIRA)	1 of 1	01	04 Mar 10	Artwork – main board
02-197017B-IS(SIRA)	1 of 1	01	04 Mar 10	Artwork – battery board
03-197000C-IS(SIRA)	1 of 1	01	04 Mar 10	General assembly
03-197088B-IS(SIRA)	1 of 1	01	04 Mar 10	Battery pack assembly
03-197095B-IS(SIRA)	1 of 1	01	04 Mar 10	Cell pack assembly
05-197012C-IS(SIRA)	1 of 1	01	04 Mar 10	Component layout - main board
05-197018B-IS(SIRA)	1 of 1	01	04 Mar 10	Component layout – battery pack
13-197094A-IS(SIRA)	1 of 1	01	04 Mar 10	Marking – main unit
13-197152A-IS(SIRA)	1 of 1	01	04 Mar 10	Marking, certification, 1.7Ah, Gp II
13-197153A-IS(SIRA)	1 of 1	01	04 Mar 10	Marking, certification, 2.7Ah, Gp II
13-197513A-IS(SIRA)	1 of 1	01	04 Mar 10	Marking, certification, 2.7Ah, Gp I/II
13-197514A-IS(SIRA)	1 of 1	01	04 Mar 10	Marking, certification, 1.7Ah, Gp I/II
17-197012C-IS(SIRA)	1 of 1	01	04 Mar 10	Critical parts list – main board
17-197018B-IS(SIRA)	1 of 1	01	04 Mar 10	Critical parts list – battery pack
93-197010D-IS(SIRA)	1 of 1	01	04 Mar 10	Schematic – main board
93-197016B-IS(SIRA)	1 of 1	01	04 Mar 10	Schematic – battery board

Issue 1

Drawing	Sheets	Rev	Date (Sira stamp)	Title
13-197094A-IS(SIRA)	1 of 1	02	31 Jan 11	Tuff Pump – IS Belt Clip Label
13-197164A-IS(SIRA)	1 of 1	01	31 Jan 11	Tuff Pump – IS Belt Clip Label (Inc M1)

Issue 2

Drawing	Sheets	Rev	Date (Sira stamp)	Title
03-197000C-IS(SIRA)	1 of 1	02	09 Mar 11	Tuff Pump – IS & Non IS Case Body S/A

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
197000C-IS(SIRA)	1 of 1	03	25 Apr 13	Tuff Pump – IS & Non IS Case Body S/A

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