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#### **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 07ATEX2002 Issue: 4

4 Equipment: SBES-LWT-IS-C and SBES-LWT-IS-C2

5 Applicant: SBES Ltd

Address: Unit F

47 Blackborough Rd

Reigate

Surrey RH2 7BU

UK

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 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 60079-0: 2006 EN 50020:2002 EN 60079-26:2004

- 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 1 G

EEx ia IIC T4 ( $T_a = -20$ °C to +40°C)

Project Number 2637

Signed:

Title: Director of Operations

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**CSA Group Netherlands B.V.** Utrechseweg 310, 6812 AR, Arnhem,

Netherlands

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#### **SCHEDULE**

#### **EU-TYPE EXAMINATION CERTIFICATE**

Sira 07ATEX2002 Issue 4

#### 13 **DESCRIPTION OF EQUIPMENT**

The SBES-LWT-IS-C or SBES-LWT-IS-C2 is a portable device carried by personnel, which transmits a radio frequency alarm signal if the carrier of the device gets into difficulties. It comprises, a printed circuit board, a single lithium cell, a sounder, a vibration motor and an antenna all housed inside a plastic enclosure.

The lithium cell used is a Saft Type LS14250, 3.6V lithium thionyl chloride.

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

- i. The introduction of the Type SBES-LWT-IS-C2 which incorporates the amendments listed below:
  - The redesign of the circuit to use a different microcontroller
  - The use of a modified printed circuit board incorporating the above changes
  - Removal of the option of using Lithium cell 3.6V LST17330
  - Modifications to the internal assembly resulting from the above changes

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

- i. Capacitor C1 was changed to 10  $\mu$ F (previously 2.2  $\mu$ F).
- ii. The supplier's component code was modified.
- iii. The operating instructions were changed.

#### Variation 3 - This variation introduced the following changes:

i. New TX module has been introduced with modified mother board.

#### 14 **DESCRIPTIVE DOCUMENTS**

## 14.1 Drawings

Refer to Certificate Annexe.

#### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	26 January 2007	R52A16059A	The release of the prime certificate.
1	27 February 2008	R59A17291A	<ul> <li>This Issue covers the following changes:</li> <li>All previously issued certification was rationalised into a single certificate, Issue 1, Issues 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.</li> <li>The introduction of Variation 1.</li> </ul>
2	28 January 2011	R24132A/00	The introduction of Variation 2.
3	11 September 2019	R80010008A	This Issue covers the following changes:  • EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (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.

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## **SCHEDULE**

## **EU-TYPE EXAMINATION CERTIFICATE**

#### Sira 07ATEX2002 Issue 4

			<ul> <li>Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</li> <li>The introduction of Variation 3.</li> <li>The Applicants address was clarified, with No.47 being introduced into Blackborough Rd.</li> </ul>
3	31st October 2019	2637	<ul> <li>Transfer of certificate Sira 07ATEX2002 from Sira Certification Service to CSA Group Netherlands B.V</li> <li>Update to label drawing.</li> </ul>

## 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

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# **Certificate Annexe**



**Certificate Number: Sira 07ATEX2002** 

Equipment: SBES-LWT-IS-C and SBES-LWT-IS-C2

Applicant: SBES Ltd

## Issue 0

Drawing No.	Sheet	Rev.	Date	Description
21.28.01	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Label
21.28.02	1 to 4	001	17 Jan 07	SBES-LWT-IS-C Layout
21.28.03	1 to 3	001	17 Jan 07	SBES-LWT-IS-C Build
21.28.04	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Haz Area
21.28.05	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Supplier
21.28.06	1 to 4	001	17 Jan 07	SBES-LWT-IS User Inst
21.28.07	1 of 1	1	17 Jan 07	SBES-LWT-IS-C Circuit Diagram

#### Issue 1

Drawing No.	Sheet	Rev	Date	Description
22.28.01	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Label
22.28.02	1 to 4	001	05 Sep 07	SBES-LWT-IS-C2 Layout
22.28.03	1 to 3	001	05 Sep 07	SBES-LWT-IS-C2 Build
22.28.04	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Haz Area
22.28.05	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Supplier
22.28.06	1 to 4	001	05 Sep 07	SBES-LWT-IS-C2 User Inst
22.28.07	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 Circuit Diagram
22.28.09	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C Tolerances
22.28.10	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 TX1 Circuit Diagram
22.28.11	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 Component Layout

#### Issue 2

Drawing	Sheets	Rev.	Date	Title
22.28.07	1 of 1	02	05 Jan 10	SBES-LWT-IS-C2 Circuit Diagram
22.28.05	1 of 1	002	07 Jan 11	SBES-LWT-IS-C2 Parts Supplier
22.28.06	1 of 4	002	07 Jan 11	SBES-LWT-IS-C2 User Intructions
22.28.06	2 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Intructions
22.28.06	3 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Intructions
22.28.06	4 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Intructions

## Issue 3

Drawing No.	Sheet	Rev	Date	Description
22.28.01	1 of 1	002	13 Mar 19	SBES-LWT-IS-C2 Label

#### **Issue 3**

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
22.28.07	1 of 1	04	03 Sep 19	SBES-LWT-IS-C2 Circuit Diagram
22.28.07B	1 of 1	03	03 Sep 19	SBES-LWT-IS-C2 TX Module Circuit Diagram

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