



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 05ATEX2005

4 Equipment: i-Button Model DS192**

5 Applicant: QinetiQ Limited

6 Address: Building X3
Fort Halstead
Sevenoaks
Kent
TN14 7BP
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 confidential report number R52A12114A.


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 + Amds 1 & 2
EN 50020:2002
EN 50284:1999

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 1G
EEx ia IIC T4 (-40°C ≤ T_a ≤ +80°C)

Project Number 52A12114
Date 28 February 2005
C. Index 12

C Ellaby 
Certification Officer

This certificate and its schedules may only be reproduced in its entirety and without change

Sira Certification Service

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 05ATEX2005

13 DESCRIPTION OF EQUIPMENT

The i-Button Model DS192** is designed to measure temperature and humidity, at set periods of time and record the data in memory. The data may be interrogated in the hazardous area by means of a suitably certified data transfer device or in the safe area by any similar, non-certified device. Accessories permit the i-Button to be mounted on to almost any type of equipment in the hazardous area that needs to be monitored.

The i-Button comprises a stainless steel, outer casing, a single, Lithium cell (Panasonic BR1225P or BR1225A) and a small, printed circuit board containing surface mount components. An isolated, stainless steel top is fitted to the enclosure and is sealed at the point of manufacture. There is no access internally by the user. An electrical circuit between the top (IO) and the base (GND) allows the equipment to be interrogated.

There are no limitations, relating to intrinsic safety, on the equipment that is used to interrogate the i-Button.

The following models are permitted:

| | | | | | | |
|-------------------------------|----------------|----------------|---------------|----------------|---------------|------------------------|
| Model | DS1921G | DS1921H | DS1921Z | DS1922L | DS1922T | DS1923 |
| Measuring range* | -40°C to +85°C | +15°C to +46°C | -5°C to +26°C | -40°C to +85°C | 0°C to +125°C | Temperature & Humidity |
| Panasonic battery type | BR1225P | BR1225A | BR1225A | BR1225P | BR1225A | BR1225A |

* The measuring range is the operational working range. When used within a hazardous area the equipment must not be used outside of the range -40°C to +80°C

14 DESCRIPTIVE DOCUMENTS

| Drawing No. | Sheet | Rev. | Date | Description |
|--------------------------|--------------|-------------|-------------|--------------------------------------|
| QINETIQ/FST/WNS/SK050346 | 1 of 1 | 1.0 | 14 Jan 05 | i-Button General Assembly |
| QINETIQ/FST/WNS/SK050386 | 1 of 1 | 1.1 | 04 Feb 05 | DS1921G, DS1921H & DS1921Z G.A. |
| QINETIQ/FST/WNS/SK050387 | 1 of 1 | 1.1 | 04 Feb 05 | DS1922L & DS1922T G.A. |
| QINETIQ/FST/WNS/SK050388 | 1 of 1 | 1.1 | 04 Feb 05 | DS1923 G.A. |
| QINETIQ/FST/WNS/SK050344 | 1 of 1 | 1.0 | 14 Jan 05 | i-Button certification label details |

14.2 Report number R52A12114A

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 report number R52A12114A.

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.

Date 28 February 2005

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