1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 03ATEX3312

4 Equipment: FST Self-Regulating Heating Cable

5 Applicant: Flexelec S.A.

6 Address: 10 Rue des Freres Lumiere
Z.A. du Bois Rond
69720 St Bonnet de Mure
France

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 numbers R51V10416A and R51V12673A.

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 (A1 and A2)
EN 50019:2000
IEC 62086-1:2001

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 2G
EEx e II T6 (applicable to cables with a rating less than 40 W/m used at up to 240 Vmax)
EEx e II T4 (applicable to cables with a rating less than 40 W/m used at up to 277 Vmax)
EEx e II T4 (applicable to cable rated at 40 W/m used at up to 277 Vmax)

Project Number 51V12673
Date 29 October 2003
Latest issue 9 February 2006
C. Index 06

C Ellaby
Certification Officer

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Sira Certification Service is a service of Sira Test & Certification Ltd

SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 03ATEX3312

Re-issued 9 February 2006 to introduce the changes described in report number R51V12673A.

13 **DESCRIPTION OF EQUIPMENT**

The FST Heating Cables are industrial grade, heating tapes that are used to protect against freezing or to maintain temperatures. They comprise two nickel coated copper bus wires, a conductive core, an optional inner jacket, an insulation jacket, a layer of tinned copper braid and an optional outer jacket of either TPE or PVDF. The self limiting characteristics of the cable ensures that it cannot overheat or burn out.

The cable is intended to be cut to length on site and is connected using suitably certified cable glands and junction boxes in accordance with the manufacturer's instructions.

14 **DESCRIPTIVE DOCUMENTS**

14.1

Drawing No.	Sheet	Rev.	Date	Title
CD 16	1 of 1	2	21 Sep 04	List and Marking of Self Limiting Cables ATEX

14.2 Report No. R51V10416A

14.3 Certificate number Sira 02ATEX3070 last amended 7 March 2003

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 No. R51V10416A.

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 An electric strength test of $\sqrt{2} \times E + 1000$ V rms shall be applied between the conductors and the outer braid or jacket as appropriate for 60 seconds as required by clause 5.1.2 of IEC 62086-1:2001.

17.4 An electric strength test of the polymeric sheath (overjacket) used for corrosion resistance shall be carried out in accordance with the requirements of IEC 62806-1:2001 clause 5.2.1

17.5 The manufacturer shall verify the output rating for each cable manufactured in accordance with IEC 62086-1-2001 clause 5.2.2.

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