



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 00ATEX1163** Issue: **3**

4 Equipment: **780 Series IR, IR³ & CCTV Flame Detectors**

5 Applicant: **Spectrex Inc.**

6 Address: **Peckman Industrial Park
218 Little Falls Road
Cedar Grove
N.J. 07009
USA**

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 50014:1997 Amendments A1 & A2

EN 50018:1994

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 2 G

EEx d IIB+H₂ T5 Amb. Temp. = -20°C to +55°C

EEx d IIB+H₂ T5 Amb. Temp. = -40°C to +70°C

EEx d IIB+H₂ T4 Amb. Temp. = -40°C to +85°C

C Ellaby
Certification Officer

Project Number 21995
C. Index 18

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



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 00ATEX1163
Issue 3

13 DESCRIPTION OF EQUIPMENT

The 780 Series IR, IR³ & CCTV Flame Detectors comprise a two part aluminium alloy enclosure. This consists a main housing assembly and a cover assembly secured by four M6 x 1.0 stainless steel cap head bolts.

The main housing assembly incorporates a sapphire window, mounted to the underside of a conical reflector protected by a permanently fixed guard plate, and contains the differing detection circuitry that distinguishes the variants within the series. The conical reflector fitted to the CCTV variants has a different cross sectional profile from the others.

The cover assembly contains terminals for connection to the supply wiring.

Cable entry is made through two cable entry points of up to a maximum size ¾" x 14 NPT situated on one face of the cover assembly.

Design options:

- Stainless steel as an alternative enclosure material of manufacture
- Metric, up to a maximum size M25 as an alternative cable entry threadform
- PG, up to a maximum size PG16 as an alternative cable entry threadform

Available model numbers

| | | |
|----------------|---|---|
| 20/20CTIN-C | - | CCTV NTSC IR3 Flame Detector, Aluminium Housing |
| 20/20CTIN-C-ST | - | CCTV NTSC IR3 Flame Detector, St.St. Housing |
| 20/20CTIP-C | - | CCTV PAL IR3 Flame Detector, Aluminium Housing |
| 20/20CTIP-C-ST | - | CCTV PAL IR3 Flame Detector St.St. Housing |
| 20/20H-C | - | Hydrogen Flame Detector, Aluminium Housing |
| 20/20H-C-ST | - | Hydrogen Flame Detector, St.St. Housing |
| 20/20SH-C | - | Hydrogen Flame Detector, Aluminium Housing |
| 20/20SH-C-ST | - | Hydrogen Flame Detector, St.St. Housing |
| 20/20I-C | - | IR3 Flame Detector, Aluminium Housing |
| 20/20I-C-ST | - | IR3 Flame Detector, St.St. Housing |
| 20/20FI-C | - | Fast IR3 Flame Detector, Aluminium Housing |
| 20/20FI-C-ST | - | Fast IR3 Flame Detector, St.St. Housing |
| 20/20R-C | - | Single IR Flame Detector, Aluminium Housing |
| 20/20R-C-ST | - | Single IR Flame Detector, St.St. Housing |
| 20/20SI-C | - | IR3 Flame Detector, Aluminium Housing |
| 20/20SI-C-ST | - | IR3 Flame Detector, St.St. Housing |

Variation 1 - This variation introduced the following change:

- i. The introduction of the following new models that reflect the change of an internal P.C.B.:

| | | |
|------------------|---|---|
| 20/20 CTINS-C-ST | - | CCTV NTSC IR3 Flame Detector, SIL2 Version, St.St. Housing |
| 20/20 CTIPS-C-ST | - | CCTV PAL IR3 Flame Detector, SIL2 Version, St.St. Housing |
| 20/20 SIS-C-ST | - | IR3 Flame Detector, SIL2 Version, St.St. Housing |
| 20/20 SHS-C-ST | - | Hydrogen Flame Detector, SIL2 Version, St.St. Housing |
| 20/20 CTINS-C | - | CCTV NTSC IR3 Flame Detector, SIL2 Version, Aluminium Housing |
| 20/20 CTIPS-C | - | CCTV PAL IR3 Flame Detector, SIL2 Version, Aluminium Housing |
| 20/20 SIS-C | - | IR3 Flame Detector, SIL2 Version, Aluminium Housing |
| 20/20 SHS-C | - | Hydrogen Flame Detector, SIL2 Version, Aluminium Housing |

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

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 00ATEX1163
Issue 3

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

| Issue | Date | Report No. | Comment |
|-------|------------------|------------|---|
| 0 | 6 February 2002 | R51A6988A | The release of the prime certificate. |
| 1 | 9 December 2002 | R51A6988B | Re-issued to permit report number R51A6988A to be replaced by R51A6988B, to allow the correction of minor typographical errors and to include appropriate label drawings with subsequent changes to the marking requirements and clarification of section 14. |
| 2 | 1 September 2006 | R51A13638B | Re-issued to recognise the changes described in report number R51A13638B. |
| 3 | 18 May 2010 | R21995B/00 | This Issue covers the following changes: <ul style="list-style-type: none">• All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.• The certificate coding was amended to correct a typographical error.• The introduction of Variation 1. |

14.3 Certificate number Sira 00ATEX1229 Issue 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.

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.

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

Certificate Annexe

Certificate Number: Sira 00ATEX1163
Equipment: 780 Series IR, IR³ & CCTV Flame Detectors
Applicant: Spectrex Inc.



Issue 0, Issue 1 and Issue 2

| Drawing | Sheet | Rev. | Date | Description |
|---------|--------|------|-----------|-------------|
| 780841 | 1 of 1 | - | 20 Oct 02 | Label |
| 780831 | 1 of 1 | F | 16 Oct 02 | Label |
| 788831 | 1 of 1 | B | 16 Oct 02 | Label |
| 7780541 | 1 of 1 | - | 14 Oct 02 | Label |
| 7788531 | 1 of 1 | B | 21 Nov 01 | Label |
| 7780581 | 1 of 1 | A | 06 Nov 01 | Label |

Issue 3 (No new drawings were introduced.)

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

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com