1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 06ATEX3185

4 Equipment: Range 9000 Junction Boxes

5 Applicant: Flameproof Electrical Enclosures Limited

6 Address: 1-1A St Martins Industrial Estate
Tat Bank Road
Oldbury
Warley
West Midlands B69 4NP
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 R51A15124E.

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 60079-0:2004
EN 60079-7:2003
IEC 61241-0:2004
EN 61241-1:2004

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 D
Ex e II T6 (Ta = -40°C to +40°C) or
Ex e II T6 (Ta = -40°C to +50°C) or
Ex e II T5 (Ta = -40°C to +50°C) or
Ex e II T5 (Ta = -40°C to +55°C) or
Ex e II T3 (Ta = -40°C to +130°C)
Ex tD A21 IP 66 T85°C or T100°C or T150°C as appropriate

Project Number 51A15124
Date 10 January 2007
C. Index 04

C Ellaby
Certification Officer

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13 **DESCRIPTION OF EQUIPMENT**

The Range 9000 Junction Boxes comprises a glass reinforced polyester enclosure with a hinged lid secured by four socket head screws. They may be fitted with an M6 internal/external earth assembly that is manufactured from brass. An internal earth continuity plate is also an option. The manufacturer has specified the type and quantity of terminals (refer to drawing 9000/123). When a tested combination of terminals is supplied, the arrangements, maximum voltage and maximum current, are shown on an internal label and the following codes are applicable:

Ex e II T6 (Ta = -40°C to +50°C) T85°C

Alternatively, the terminals may be in any combination subject to the manufacturer calculating the maximum dissipated power in accordance with EN 60079-7:2003 and the conditions of certification associated with the terminals. A maximum dissipated power rating of 7.2 W is assigned for this purpose. When using the power dissipation method to select terminals the following certification codes are appropriate:

Ex e II T6 (Ta = -40°C to +40°C)	T85°C
Ex e II T5 (Ta = -40°C to +50°C)	T100°C
Ex e II T5 (Ta = -40°C to +55°C)	T100°C
Ex e II T3 (Ta = -40°C to +130°C)	T150°C

14 **DESCRIPTIVE DOCUMENTS**

14.1

Drawing	Sheet	Rev.	Date	Description
9000/120	1 of 1	A	Sep 06	Range 9000 Ex e Junction Box
9000/121	1 of 1	A	Sep 06	Range 9000 Ex e Junction Box with External Earthing Stud
9000/123	1 of 1	C	08 Sept 06	Range 9000 Enclosure Terminal Combinations
9000/03	1 of 1	A	Feb94	Earth Continuity Plate for the Range 9000 Junction Box
9000/13	1 of 1	A	Mar 97	Range 9000 Earth Stud
9000/15	1 of 1	A	Mar 97	Range 9000 Terminal Mounting Plate
9000/07	1 of 1	B	14 Apr 94	Terminal Platform Style 2
9000/08	1 of 1	A	18 Apr 94	Insulated Cross Connecting Comb
9000/26	1 of 1	0	22 Mar 00	EEx e JB9000 Junction Box with Alternative Fixing Method
9000/122	1 of 1	A	Sep 06	Certification Labels
9000/124	1 of 1	A	Sep 06	Trade Agent Label

14.2 Report number R51A15124E

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 R51A15124E.

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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 The following routine test applies to enclosures supplied by Flameproof Electrical Enclosures Ltd that have been wired at the manufacturer's premises:

An electrical strength test of 2 x rated voltage +1000 V, rms (minimum 1500 V) shall be applied between live parts and earth for at least 60 s and no more 63 s as required by clause 6.1 of EN 60079-7: 2003. Alternatively the test voltage shall be 1.2 x this maximum value and the duration shall be 100 ms in accordance with 7.1 of EN 60079-7: 2003.

17.4 The products covered by this report incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of the products.

17.5 The terminals fitted into the Range 9000 Junction Boxes shall conform to the following requirements:

Temperature Class/T Dust	Requirement
T6/T85°C	The terminals shall have an insulation limiting temperature of 100°C minimum
T5/T100°C	The terminals shall have an insulation limiting temperature of 120°C minimum
T3/T150°C	The terminals shall be ceramic

17.6 All terminals fitted shall be installed in accordance with their certificate conditions and the relevant codes of practice/wiring regulations.

17.7 When using the maximum dissipated power method, the power of a particular junction box shall be calculated in accordance with EN 60079-7: 2003 Annex E, E2 and this shall not exceed the maximum dissipated power rating of the enclosure, 7.2 W.

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