



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 10ATEX1363** Issue: **1**

4 Equipment: **FlameGard 5 MSIR**

5 Applicant: **Mine Safety Appliances Company**

6 Address: 1000 Cranberry Woods Drive  
Cranberry Township  
Pennsylvania 16066  
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 60079-0:2012

EN 60079-1:2007

EN 60079-31:2009

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 d IIC T5 Gb  
Ex tb IIIC T100°C Db  
(Ta = -40°C to +80°C)

Project Number 31190

C Ellaby  
Deputy Certification Manager

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**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

Sira 10ATEX1363  
Issue 1

**13 DESCRIPTION OF EQUIPMENT**

The FlameGard 5 MSIR, as detailed in Figure 1, is an infrared device that is rated at 2.1 W maximum. It is manufactured from stainless steel, is cylindrical in shape and comprises a base and cover secured by five, M6, grade A2-70, hexagon socket-head cap screws. The base contains a stainless steel mounting pin and two, 3/4"-14 NPT, cable entry that accommodate suitable cable entry devices or stopping plugs. The cover contains a sapphire window and houses the PCBs and associated electronics that perform the equipment's measuring function.



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

- i. The option to use of Viton® as a material of manufacture of the O-ring.
- ii. The recognition of the following label drawing changes:
  - The dust marking shown on the label was modified to bring it into line with that stated on the certificate.
  - An alternative adhesive was allowed to be used.
  - The text on the drawing was amended.
  - The associated IECEx certification was included on the label for General Monitors Inc.

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

- i. Following appropriate assessment to demonstrate compliance with the requirements of the latest technical knowledge, EN 60079-0:2006 was replaced by EN 60079-0:2012, the marking was amended accordingly, in addition, IEC 60079-0:2007 Edition 5 is no longer required for guidance in respect of marking.
- ii. The introduction of an optional Rain Guard assembly.

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Sira Reports and Certificate History**

Issue	Date	Report number	Comment
0	14 March 2011	R23689A/00	The release of the prime certificate and incorporating Variation 1.
1	10 September 2013	R31190A/00	The introduction of Variation 2.

14.3 Certificate number Sira 09ATEX1270 Issue 2

**15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)**

None

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**Sira Certification Service**

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**SCHEDULE**

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Issue 1**

**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.

17.3 The Viton O-ring seal utilised with the equipment is limited to the types specified in section 3.1.1 of report number R31190A/00. It is the manufacturer's responsibility to ensure that the continuous operating temperature (COT) is at least -40°C to +250°C.

# Certificate Annexe

Certificate Number: Sira 10ATEX1363  
Equipment: FlameGard 5 MSIR  
Applicant: Mine Safety Appliances Company

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## Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
910000	1 to 2	A	01 Feb 11	Nameplate MSA FlameGard 5 MSIR

## Issue 2

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
910000	1 to 3	F	9 <sup>th</sup> August 2013	Nameplate MSA, Flameguard 5 MSIR

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