



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: issue No.:

Status:

Date of Issue: **2011-03-15** Page 1 of 3

Applicant: **Mine Safety Appliances Company**
1000 Cranberry Woods Drive
Cranberry Township
Pennsylvania 16066
United States of America

Electrical Apparatus: **FlameGard 5 MSIR**
Optional accessory:

Type of Protection: **Flameproof and Dust by Enclosure**

Marking: **Ex d IIC T5 Gb**
Ex t IIIC T100°C Db
(Ta = -40°C to +80°C)

Approved for issue on behalf of the IECEx Certification Body: **D R Stubbings BA MIET**

Position: **Certification Manager**

Signature:
(for printed version)

Date:

2011-03-15

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



IECEx Certificate of Conformity

Certificate No.: IECEx SIR 10.0191

Date of Issue: 2011-03-15

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Manufacturer: **Mine Safety Appliances Company**
1000 Cranberry Woods Drive
Cranberry Township
Pennsylvania 16066
United States of America

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

- IEC 60079-0 : 2007-10** Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5
- IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition: 6
- IEC 60079-31 : 2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition: 1

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/SIR/ExTR10.0304/00](#)

Quality Assessment Report:

[FR/INE/QAR08.0011/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The FlameGard 5 MSIR 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

CONDITIONS OF CERTIFICATION: NO