

### **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

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IECEx SIR 10.0190

issue No.:0

Certificate history:

Status:

Current

Date of Issue:

2011-03-15

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Applicant:

Mine Safety Appliances Company

1000 Cranberry Woods Drive Cranberry Township

Pennsylvania 16066

**United States of America** 

Electrical Apparatus:

FlameGard 5 UV/IR and FlameGard 5 UV/IR-H2

Optional accessory:

Type of Protection:

Flameproof and Dust by Enclosure

Marking:

Ex d IIC T5 Gb

Ex t IIIC T100°C Db IP66/67

Ta = -40°C to +85°C

Approved for issue on behalf of the IECEx

Certification Body:

D R Stubbings BA MIET

Position:

Signature:

Certification Manager

(for printed version)

Date:

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.

Certificate issued by:

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





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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 UV/IR(-H2) are ultraviolet/infrared devices. It comprises a rectangular base and a cylindrical cover secured by four M6 grade A2-70 hexagon socket-head bolts. The base contains two M20 x 1.5 cable entry points for the fitting of suitable cable entry devices on one side-wall. The cover, contains a large circular quartz window, a smaller sapphire circular window, and quartz light rods.

#### Design options

CONDITIONS OF CERTIFICATION: NO

The FlameGard 5 UV/IR(-H2) may utilise the following cable entry threadforms: M25 x 1.5  $$^{9}\!\!\!/\!\!\!/^{\circ}$  14 NPT PG 13.5

The Manufacturer shall comply with the following condition of manufacture:

 Each FlameGard 5 UV/IR(-H2) enclosure shall be subjected to a routine overpressure at 20.5 bar in accordance with IEC 60079-1 clause 16. There shall be no permanent deformation or damage or leakage through the enclosure walls