



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.: IECEx BAS 15.0103X

Issue No: 3

Certificate history:

Status: **Current**

[Issue No. 3 \(2017-06-09\)](#)

[Issue No. 2 \(2017-03-01\)](#)

Date of Issue: **2017-06-09**

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[Issue No. 1 \(2016-10-12\)](#)

[Issue No. 0 \(2015-10-23\)](#)

Applicant: **Federal Signal Corporation**
2645 Federal Signal Drive
University Park
Illinois
60484
United States of America

Equipment: **Global Series Modular Visual Strobe**

Optional accessory:

Type of Protection: **Flameproof, increased safety, dust protected**

Marking:

Ex db IIC T3 Gb
Ex tb III C T200°C Db IP66 (T_{amb} = -55°C to +70°C)

or

Ex db e IIC T3 Gb
Ex tb III C T200°C Db IP66 (T_{amb} = -55°C to +70°C)

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

Date:

PP McPowney
9/6/17
MPowney

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:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Manufacturer: **Federal Signal Corporation**
2645 Federal Signal Drive
University Park
Illinois
60484
United States of America

Additional 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/BAS/ExTR15.0131/00
GB/BAS/ExTR17.0167/00

GB/BAS/ExTR16.0278/00

GB/BAS/ExTR17.0045/00

Quality Assessment Report:

US/UL/QAR06.0012/08



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Global Series Modular Visual Strobe is rated for 24Vdc, 1.5A or 110Vac, 450 mA or 240Vac, 340mA and is afforded ingress protection rating IP66. The maximum flash frequency is 90 FPM.

The Global Series Modular Visual Strobe comprises a non-metallic flameproof Strobe enclosure, which may be used with optional increased safety terminal enclosures.

The flameproof Strobe enclosure is in two parts, that are screwed together to form a threaded flameproof joint. Entry to the internal electronics is via this threaded joint, which is additionally retained by a hexagon socket set screw. The bottom half of the enclosure has two entry holes to provide electrical connections. The top half of the enclosure has an integral glass dome, covered by a metallic guard. An optional non-metallic clear or coloured lens may be fitted which is not covered by this certificate.

When the optional increased safety terminal enclosures are used, a line bushing to IECEx EPS 11.0004X is fitted to provide conductor egress from the flameproof enclosure for connection inside the increased safety enclosure. Component certified terminals to IECEx PTB 05.0003U or IECEx PTB 08.0048U are used.

Cable entry holes are provided as specified in the certification drawings for the accommodation of cable entry devices, with or without the interposition of a thread adaptor. Unused entries are to be fitted with certified stopping plugs. The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component).

When used in a potentially explosive dust atmosphere, the cable entry devices shall maintain the ingress protection of the enclosure.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Modular Visual Strobe has external non-metallic surfaces which may provide a potential electrostatic charging hazard. See the manufacturer's instructions for further information.

2. The Modular Visual Strobe has metallic components in the non-metallic walls of the enclosure which can store electrical charge and therefore may provide a potential electrostatic charging hazard. The metallic brass inserts have a capacitance of 14 pF. The metallic guard has a capacitance of 18 pF. See the manufacturer's instructions for further information.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 3.1

- 1) Reduction of maximum flash rate from 90FPM to 60FPM for all units.
- 2) Introduction of a 15 Joule 60FPM Strobe together with subsequent reduction in power rating and changes in internal circuits:

Model	Rated voltage	Rated current
15 Joule Strobe	24 Vdc	830 mA
	110Vac	335 mA
	240Vac	195 ma

In this form the unit is designated G-STR Global Series Modular Visual Strobe -15J and is coded:-

Ex db IIC T4 Gb (Tamb -55°C to 70°C)

Ex tb IIIC T135°C Db IP66

Ex db e IIC T4 Gb (Tamb -55°C to 70°C)

Ex tb IIIC T135°C Db IP66

ExTR: GB/BAS/ExTR17.0167/00

File Reference: 17/0308