



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 FMG 19.0015X

Issue No: 0

Certificate history:

[Issue No. 0 \(2019-06-07\)](#)

Status: **Current**

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Date of Issue: **2019-06-07**

Applicant: **Fire & Gas Detection Technologies Inc.**
590 W Central Ave, Suite K Brea, CA 92821
United States of America

Equipment: **Flame Detector Models FLS-IR3-XXXX, FLS-UV-IR-XXXX, FLS-UV-IR-F-XXXX and FLS-IR3-H2-XXXX**

Optional accessory:

Type of Protection: **Flameproof db, Increased Safety eb**

Marking: Ex db IIC T4 Gb ; Ex db eb IIC T4 Gb T4 -50°C ≤ Ta ≤ +85°C, T5 -50°C ≤ Ta ≤ +75°C

*Approved for issue on behalf of the IECEx
Certification Body:*

J. E. Marquedant

Position:

VP, Manager - Electrical Systems

*Signature:
(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:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America





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Manufacturer: **Fire & Gas Detection Technologies Inc.**
590 W Central Ave, Suite K Brea, CA 92821
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 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 : 2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0
IEC 60079-1 : 2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0
IEC 60079-7 : 2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

*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:

[US/FMG/ExTR19.0010/00](#)

Quality Assessment Report:

[GB/FME/QAR19.0009/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

General – Models FLS-IR3-XXXX, FLS-UV-IR-XXXX, FLS-UV-IR-F-XXXX and FLS-IR3-H2-XXXX Flame Detector are flame actuated fire detection devices with sensors that detect fire and minimize the false alarm due to interference. The detector addresses slow growing fires as well as fast eruption of fire using improved Triple IR (IR3) technology. It operates in all weather and light conditions with highest immunity to false alarms.

Construction – Models FLS-IR3-XXXX, FLS-UV-IR-XXXX, FLS-UV-IR-F-XXXX and FLS-IR3-H2-XXXX Flame Detectors have the same enclosure construction (with the exception of the sensor openings) and consist of a two compartment housing made of STS316 stainless steel. The forward most compartment (housing) consist of a sapphire window with a polyimide film window heater. The UV models have two openings and the IR3 model has three openings. Both use the same window and have the same flame path configuration. The three opening IR3 model was consider to be the worst case for the explosionproof enclosure and was used for the majority of the testing. The window is mechanically secured using a retaining bracket with 3 screws. This compartment contains the electronics. The housing is connected to a connection box using 4 hex head screws to secure a spigot joint. The connection box consists of two conduit entries that can be configured with M25 metric or ¾ inch NPT threads and one of which, when unused, will be fitted with a certified blanking plug. A printed circuit board for making the electrical connection passes through a channel between the two compartments and is sealed with epoxy compound. The rear most portion of the connection box is closed by a cover with a spigot joint which is secured using 4 hex head screws.

FLS-a-ASb1 Non HD Flame Detector

a = IR3 or IR3- H2 or UV-IR or UV-IR-F

b = 1 (M25) or 2 (¾" NPT)

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Flameproof joints are not intended for repair. Contact manufacturer for more information if flameproof joints are damaged.
- Consult the manufacturer for genuine replacement cover and house to connection box fasteners. M6x1x18 Hexagonal Socket head fasteners with a minimum of ISO 4762 Grade A4 Class 80 are acceptable alternatives.