IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.:	**IECEx FMG 20.0017X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-10-26		
Applicant:	**Fike Corporation** 704 SW 10th Street Blue Springs Missouri 64015 **United States of America**		
Equipment:	**Flame Detectors Models FIK-IR3-HD-ASX1, FIK-UV-IR-HD-ASX1, FIK-UV-IR-F-HD-ASX1 and FIK-IR3-H2- HD-ASX1**		
Optional accessory:			
Type of Protection:	**Flameproof db**		
Marking:	Ex db IIB 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 www.iecex.com or use of this QR Code.

Certificate issued by:

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

FM Approvals
Member of the FM Global Group

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Manufacturer: **Fike Corporation**
704 SW 10th Street
Blue Springs
Missouri 64015
United States of America

Additional manufacturing locations:

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 equipment 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

This Certificate **does not** indicate compliance with 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/ExTR20.0009/00

Quality Assessment Reports:

CA/CSA/QAR17.0006/01 CA/CSA/QAR17.0006/02

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

General – The flame detectors have four sensitivity ranges, Alarm and Fault, rated 2A at 30VDC relays, uses 0-20mA analog output and has RS-485 Modbus outputs and Ethernet output for HD video. The detector operates from 18 to 32 V dc via connection to a compatible FM Approved fire alarm control providing separate circuits for alarm signaling and for power. All models include an internal data logger and HD camera.

Construction – Models FIK-IR3-HD-ASX1, FIK-UV-IR-HD-ASX1, FIK-UV-IR-F-HD-ASX1 and FIK-IR3-H2-HD-ASX1 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 three openings and the IR3 model has four openings. Both use the same window and have the same flame path configuration. The four opening IR3 model was considered 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 4 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 threaded cover.

Ratings - Models FIK-IR3-HD-ASX1, FIK-UV-IR-HD-ASX1, FIK-UV-IR-F-HD-ASX1 AND FIK-IR3-H2-HD-ASX1 Flame Detectors operate at 18-32 Vdc. The detectors are rated for use in an ambient temperature range of -50°C to +85°C or -50° to 75°C.

FIK-a-ASb1 HD Flame Detector
a = IR3-HD or IR3- H2-HD or UV-IR-HD or UV-IR-F-HD
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.