

1 EU-TYPE EXAMINATION CERTIFICATE



2 Equipment or Protective systems intended for use in Potentially
Explosive Atmospheres - Directive 2014/34/EU

3 EU-Type Examination Certificate No: FM18ATEX0040X

4 Equipment or protective system: FDS303 IR3 Multi Spectrum Flame Detector
(Type Reference and Name)

5 Name of Applicant: Micropack Engineering Ltd.

6 Address of Applicant: Fire Training Centre
Schoolhill
Portlethen
Aberdeen
Scotland AB12 4RR

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

3062102 dated 10th May 2018

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60529:1991+A1:2000

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:



II 2 G Ex db IIC T4 Gb Ta = -60°C to +85°C

Digitally signed
by Richard
Zammitt
Foxit
PhantomPDF
Version: 10.1.4

Richard Zammitt
Deputy Certification Manager, FM Approvals Europe Ltd.

Issue date: 01st June 2021

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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13 Description of Equipment or Protective System:

The **FDS-303 Multi Spectrum IR3 Flame Detector** includes an aluminium or Stainless Steel assembly consisting of a threaded enclosure body, a threaded back cover and a threaded window cover. An O-ring seal is provided at each end between the enclosure body and the back cover / window cover respectively in order to prevent the ingress of dust and water.

The equipment enclosure has an ingress protection rating of IP66.

The electrical ratings are 32Vdc maximum and 700 mA (maximum). The ambient temperature range of the equipment is from -60°C to +85°C

14 Specific Conditions of Use:

1. The equipment is to be installed in places where there is a low risk of mechanical damage.

15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18 Certificate History

Details of the supplements to this certificate are described below:

Date	Description
18 th May 2018	Original Issue.
03 rd December 2018	Supplement 1: Report Reference: - PR451324 dated 30 th November 2018 Description of Change: Documentation update due to a minor modification in the diameter of the optical piece.

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SCHEDULE



Member of the FM Global Group

to EU-Type Examination Certificate No. FM18ATEX0040X

Date	Description
25 th April 2019	<u>Supplement 2:</u> Report Reference: - RR216299 dated 18 th April 2019 Description of Change: Documentation update. Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809.
01 st June 2021	<u>Supplement 3:</u> Report Reference: - RR227728 dated 24 th May 2021 Description of Change: Update EN 60079-0 from Ed. 6 to EN IEC 60079-0:2018 Ed. 7. IP66 rating moved to Section 13. Documentation update.

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Blueprint Report

Micropack Engineering Ltd (1000009409)

Class No 3260

Original Project I.D. 3062102

Certificate I.D. FM18ATEX0040X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
2301.6007	4.6	FDS Series Enclosure - Main Body	3062102
2301.6009	3.5	FDS Series Enclosure - Back Cover	3062102
2301.6013	2.7	FDS Series Enclosure Painting Details	RR216299
3303.0001	2.2	Multi Spectrum IR Flame Detector - Safety & Technical Manual	RR227728
3303.1001.01	B	FDS303- GENERAL ASSEMBLY	PR451324
3303.1002	B	FDS303- ELECTRONICS MODULE	3062102
3303.1003.01	1	Heater board Schematics	3062102
3303.1003.02	2	Window Heater Board Assembly BOM	3062102
3303.1004.01	1	Sensor and Processor board schematic	3062102
3303.1004.02	2	Sensor and Processing Board Assembly BOM	3062102
3303.1005.01	1	Relay IO & PSU board	3062102
3303.1005.02	2	Relay IO and PSU Assembly BOM	3062102
3303.1006.01	1	Termination board	3062102
3303.1006.02	2	Rear Terminal and IO Protection Board Assembly BOM	3062102
3303.1008	A	FDS303 IR Sensor Moulding	3062102
3303.6006.01	G	FDS303 - RATING LABEL	RR218200
3303.8001	F	FDS303 - WINDOW COVER	PR451324
3303.8002	C	FDS303 - WINDOW FASTENING RING	3062102
3303.8003	D	FDS303 - SAPPHIRE WINDOW	3062102
3303.8004	E	FDS303 - WINDOW COVER GENERAL ASSEMBLY	PR451324
3303.8005	C	Sapphire window Assembly instruction to complete Window cover 3303.8004	RR227728
3303.8006.01	F	FDS303- ENCLOSURE ASSEMBLY	PR451324