CERTIFICATE OF CONFORMITY



1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. Certificate No:

FM24US0019X

3. Equipment:

(Type Reference and Name)

Talentum Series 16000

4. Name of Listing Company:

5. Address of Listing Company:

FFE Ltd

9 Hunting Gate,

Hitchin,

Hertfordshire, SG4 OTJ, United Kingdom

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

3059453 dated 10th July 2023

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM 3260:2021, FM 3600:2018, FM 3615:2022, FM 3616:2011, ANSI/ISA 60079-0:2013, ANSI/ISA 60079-1:2013, ANSI/IEC 60529:R2011

- 8. 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.
- 9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- 10. Equipment Ratings:

Part Nos. 16519. Talentum Series 16000 Flame Detectors

I/1/AEx db/IIC/T4 Gb, IP66 DIP/II,III/1/EFG/T4, IP66 -20°C ≤ Ta ≤ +85°C

Certificate issued by:

J. E. Marquerdin

19 February 2024

J.E. Marquedant

VP, Manager - Electrical Systems

Date

To verify the availability of the Approved product, please refer to www.approvalquide.com

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

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F347 (Apr 21)



SCHEDULE

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11. The marking of the equipment shall include:

FM Mark

12. Description of Equipment:

The product is listed in the following sections of the Approval Guide:

Detection, Fire Alarm and Signaling Equipment | Flame (Radiant Energy) Detectors | **Alarm Signal Initiating Devices**, **Fire Detection**, **Flame-Actuated**

Electrical Equipment for Explosive Atmospheres | United States Certification | **Detectors**, **Flame**, **Explosive Atmospheres - US**

Models	Talentum Series 16000 Flame Detectors, Part Nos.16519 (IR3 Exd), 16589 (IR3), 16591 (UV/IR2)	
Firmware	16519. lss: 20-04 16589. lss: 20-05 16591. lss: 20-05	
Operating Voltage	14 to 30 V dc	
Power Consumption	Standby: 8 mA Alarm: 28 mA	
Operating Temperature Range	-20°C to +60°C: 16519, 16589, 16591	
Outputs	Fire and fault relays. Required Dip switch settings: both relays operating with RL2 as fault relay	
Compatibility	Relays connect to a compatible FM Approved control providing separate power and initiating device circuits. Alarm relay setting as latching.	
Sensitivity	High Class 1 setting	
Response Time	Delay settings of 1 to 8 s. 30 s maximum response time specification is independent of delay setting.	
Fuels tested for response	N-heptane, Methylated Spirit, JP4 (See Instructions for details)	
Environmental	IP65: 16589, 16591 IP66: 16519	

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SCHEDULE

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Hazardous Location Equipment	Part Nos. 16519. Talentum Series 16000 Flame Detectors
	I/1/AEx db/IIC/T4 Gb, IP66 DIP/IIJII/1/EFG/T4, IP66 -20°C ≤ Ta ≤ +85°C

13. Specific Conditions of Use:

- 1. Suitably rated conduit seal required at the enclosure opening
- 2. Consult the manufacturer if dimensional information on the flameproof joints is necessary.
- 3. Risk of explosion due to electro-static charge. Static electricity charge may develop when cleaning the product with a dry cloth. It is imperative to avoid static electricity charge in the hazardous environment. Accessories Mounting brackets and weather shields

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
19 February 2024	Original Issue, reference PR466137

FM Approvals

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CB-P/S

OCPS

Accredits CCN