



1. HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

2. Certificate No:

FM16CA0022X

3. Equipment: (Type Reference and Name)

FG-ALS4-OD Hydrocarbon Leak Detector

4. Name of Listing Company:

TTK SAS

5. Address of Listing Company:

19 Rue du Général Foy, Paris, 75008, France

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

3054085 dated 14th November 2016

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

CSA C22.2 No. 60079-0:2015, CSA C22.2 No. 60079-11:2014 (R2018)

- 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:

Intrinsically Safe for Class I, Division 1, Groups C and D, T4 hazardous locations in accordance with drawing 160405; Intrinsically Safe as Ex ia IIB T4 Ga hazardous locations in accordance with drawing 160405.

Certificate issued by:

E. Marquestir

J.E. Marquedant

VP, Manager - Electrical Systems

13 May 2024

Date

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

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

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SCHEDULE

Canadian Certificate Of Conformity No: FM16CA0022X



11. The marking of the equipment shall include:

FG-ALS4-OD:

Not for use in Hazardous Location.

FG-ODa, FG-ODRa FG-ODCa and FG-ODC+a

CL 1 DIV 1 GP CD T4, CL 1 ZN 0 Ex ia IIB T4

12. Description of Equipment:

The FG-ALS4-OD Leak Detection System provides Hydrocarbon leak detection with a control panel, lengths of sensing cables and accessories. The FG-ALS4-OD controller includes an LCD touchscreen which shows the alarm indication by zone. The controller has the capacity to monitor up to 4 individual zones with each zone consisting of up to 4 lengths of sensor cables FG-OD, FG-ODR, FG-ODC or FG-ODC+ up to a maximum of 20 m (65 Ft).

Models	Description
FG-ALS4-OD	Power Input: 100 – 240 VAC
FG-ODa	Sensing Cable; a = length: 1, 3, 7, 12 or 20;
FG-ODRa	Sensing Cable; a = length: 1, 3, 7, 12 or 20;
FG-ODCa	Sensing Cable; a = length: 1, 3, 7 or 12;
FG-ODC+a	Sensing Cable; a = length; 1 or 3;
FG-CLODa	Leader Cable - Indoor Only, a = length; 3.5 or XX
FG-NODa	Jumper Cable; a = length; 3, 7, 15 or XX
FG-TMOD	End Terminator

Application Notes:

 The FG-ALS4-OD shall not be installed in hazardous locations and shall only be used in safe/unclassified areas.

13. Specific Conditions of Use:

- 1. For FG-ALS4-OD, surge suppression is required on detection circuits for installations that may be exposed to surge transients.
- 2. The FG-OD, FG-ODR, FG-ODC and FG-ODC+ sensor cables shall be terminated only using the FG-TM-OD end of line terminator.

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SCC Accredited
CB-P/S
CD-P/S
OCPS
Accredite CCN

SCHEDULE

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14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

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
14 November 2016	Original Issue.
13 May 2024	Supplement 1: Report Reference: PR462476 dated 13 May 2024. Description of the Change(s): Added FG-ALS4-OD and accessories.

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