

CERTIFICATE OF CONFORMITY



1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS
2. Certificate No: FM20US0151
3. Equipment: PrimaX IR Gas Monitor
(Type Reference and Name) Combustible Gas Detector
4. Name of Listing Company: MSA-The Safety Company
5. Address of Listing Company: 1000 Cranberry Woods Dr
Cranberry Twp PA, 16066
USA
6. The examination and test results are recorded in confidential report number:
3036837 dated 28th June 2013
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2022, FM Class 3615:2022, FM Class 3810:2021, FM Class 6320: 2018,
ANSI/FM 60079-29-1-2019, ANSI/NEMA 250:1991, ANSI/UL 61010:2015
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:

Explosionproof for Class I, Division 1, Groups A, B, C and D; Dust-ignitionproof for Class II, Division 1, Groups E, F and G hazardous (classified) locations, indoors and outdoors Type 4X with an ambient temperature rating of T4A Ta= -50°C to +75°C.

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

17 May 2023

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

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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SCHEDULE



Member of the FM Global Group

US Certificate Of Conformity No: FM20US0151

11. The marking of the equipment shall include:

PrimaX IR Gas Monitor:

Class I Division 1, Groups A, B, C, D; T4A Ta = -50°C to +75°C; Type 4X

Class II, Division 1, Groups E, F, G; T4A Ta = -50°C to +75°C; Type 4X

12. **Description of Equipment:**

General – The PrimaX IR Gas Monitor is a Stationary single channel 4-20mA combustible gas detector. Standalone infrared Sensor/Transmitter. PrimaX IR is Explosionproof for Class I, Division 1, Groups A, B, C and D, T4A Ta = -50°C to +75°C; and Dust-ignitionproof for Class II, Division 1, Groups E, F and G, T4A Ta = -50°C to +75°C Hazardous (Classified) Locations, indoor and outdoor, Type 4X. The PrimaX IR includes a male ¾ NPT connection for field installation. The PrimaX IR provides a 4-20mA measurement signal with HART communication. The electrical ratings are 18 - 32 VDC, 6 watts maximum. The operating temperature range of the PrimaX IR is -50°C to +75°C. The PrimaX IR monitors 0-100% LEL methane gas-in-air atmospheres or 0-100% LEL propane gas-in-air atmospheres. In addition, the apparatus complies with FM3620 Performance Requirements for Combustible Gas Detection Instruments.

The following accessories may be used with the PrimaX IR Gas Detector: Aluminum junction box kit, p/n 10117607; Stainless steel junction box kit, p/n 10124331; Calibration cover/bump cap, p/n 10122228; Flow cap, p/n 10113100; Environmental guard, p/n 10113663; Calibration Cap 10111874.

Ratings - The PrimaX IR Gas Monitor operate at 18-32 Vdc, 24 Vdc (Nominal) 6 watts maximum. The gas monitor is rated for use in an ambient temperature range of -50°C to +75°C.

Specifications - The manufacturer's specifications are as follows:

Operating Temperature:	-50°C to +75°C
Storage Temperature:	-40°C to +80°C
Relative Humidity:	15 to 95% RH
Supply Parameters:	18-32 Vdc, 24 Vdc (Nominal), 6 watts maximum
Measurement Signal:	4-20mA
Calibration:	Calibration Cap or HART
Firmware:	3.6

A-PRIMAXIR-abc, Gas Monitor

a = Gas type: 14 or 15

b = NPT Thread

c = -50°C to +75°C

13. **Specific Conditions of Use:**

None

14. **Test and Assessment Procedure and Conditions:**

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SCHEULE



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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
28 th June 2013	Original Issue.
22 nd December 2020	<u>Supplement 1:</u> Report Reference: Project PR458379 dated 22 nd December 2020. Description of the Change: Examination and qualification of alternate sapphire window. Conduct GAP analysis of FM 3600, FM 3615, and FM 3810 and updated Certificate to latest edition. Added reference to ANSI/UL 61010 per requirements of FM 3810.
17 th May 2023	<u>Supplement 2:</u> Report Reference: Project PR459559, dated 17 th May 2023. Description of the Change: Update of standard, addition of firmware in listing. FM 3600, 3615 and 3810 updated to the latest editions.

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