

CERTIFICATE OF CONFORMITY

**1. EQUIPMENT CERTIFICATE OF CONFORMITY PER CANADIAN REQUIREMENTS FOR
GENERAL ELECTRICAL INDUSTRIAL**

2. **Certificate No:** FM25CA0042X
3. **Equipment:**
(Type Reference and Name) Bacharach® X50 – Fixed Gas Monitor
Bacharach®X30 – Fixed Gas Monitor
Bacharach® X10 – Remote Gas Sensor
4. **Name of Listing Company:** MSA Innovation LLC dba MSA - The Safety Company
5. **Address of Listing Company:** 1000 Cranberry Woods Drive, Cranberry Township,
Pennsylvania 16066, United States of America

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

PR474192 dated 21st January 2026

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. 94.2:2020, CSA C22.2 No. 60529:R2021, CSA C22.2 No. 61010-1-12 (R2022)

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. Approval Guide Listing Category:

Monitors, Gas, General Industrial

11. Equipment Ratings:

Suitable for use in Ordinary Locations with Ingress Protection Type 4 and IP66

Certificate issued by:



04/03/2026

J.E. Marquedant
VP, Manager - Electrical Systems

Date

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

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12. The marking of the equipment shall include:



Type 4, IP66

13. **Description of Equipment:**

General

The Bacharach® X-Series X10, X30, and X50 are fixed refrigerant gas monitors designed for continuous monitoring of indoor ambient air for HCFC, HFC, HFO refrigerants, and carbon dioxide (R-744). All models are intended for non-classified, non-hazardous, permanent installations and feature 4–20 mA and relay output safety functions, along with Modbus RTU digital communication and Bluetooth ancillary functions.

Differences between models are as follows:

- X10: Remote sensor module designed for connection and use with X50 only. Provides Modbus communication to X50. Provides Modbus communication to X50[#]. No relays or analog outputs.
- X30: Standalone monitor with one integrated sensor, one configurable relay, one analog output (4–20 mA, 1–5 V, or 2–10 V), one analog output (+24 VAC/DC), Modbus RTU*, and Bluetooth connectivity for configuration and diagnostics.
- X50: Advanced monitor supporting up to two sensors (integrated and/or remote), four relays (fault, low alarm, high alarm, configurable), two analog outputs (4–20 mA, 1–5 V, or 2–10 V), one analog output (+24 VAC/DC), Modbus RTU*, and Bluetooth connectivity for configuration and diagnostics.

(*) Modbus RTU provides safety functions when connected to a controller

All models include integrated audio-visual indicators for local status indication.

Construction:

The X30 and X50 models use a polycarbonate main housing with an ABS sensor housing, while the X10 remote sensor module shares the same material construction but in a smaller form factor. All enclosures provide IP66 ingress protection when installed with suitable cable glands or conduit fittings.

The X10 offers side entry for M16/M20 or ½” NPT fittings, the X30 includes side and bottom entries for M16/M20 or ½” NPT, and the X50 provides side and bottom entries for M16/M20, ½”, or ¾” NPT.

Operation Temperature Ranges:

The ambient operating temperature range of all models is –40 °C to +50 °C (–40 °F to +120 °F). The storage temperature range is –20 °C to +40 °C (–5 °F to +100 °F).

Electrical data:

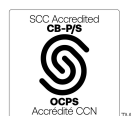
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The models have the following electrical ratings:

	Models		
Parameter	X10	X30	X50/X50+X10**
Supply Voltage	Powered via X50 (no independent supply)	19.5–28.5 VDC or 24 VAC ±20%, 50/60 Hz	19.5–28.5 VDC or 24 VAC ±20%, 50/60 Hz
Power Consumption	N/A**	8 W (333 mA @ 24 VDC)	14 W (583 mA @ 24 VDC)
Inrush Current	N/A**	1.5 A	1.5 A
Relay Ratings	None	1x DPDT, 24 V AC/DC, 2A	4x DPDT, 24 V AC/DC, 2A
Analog Output	None	4–20 mA, 1–5 V, or 2–10 V (configurable) [#] 24 VAC/DC	4–20 mA, 1–5 V, or 2–10 V (configurable) [#] 24 VAC/DC

(**) The X10 remote sensor module does not have independent power requirements because it is powered through its connection to the X50 and does not include relays or analog outputs; it communicates exclusively via Modbus to the X50.

(#) Safety function.

Refer to Annex for model codes.

14. Specific Conditions of Use:

The equipment is intended for analytical purposes or measurement information to determine status with no safety related functions including shutting down equipment.

15. Test and Assessment Procedure and Conditions:

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

16. Schedule Drawings

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

17. Certificate History

Details of the supplements to this certificate are described below:

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Date	Description
21 January 2026	Original Issue.
3 April 2026	<u>Supplement 1:</u> Report Reference: RR250029 dated 3 April 2026. Description of the Change(s): <ul style="list-style-type: none">1. Documentation updates2. Relay ratings for X30 and X50/X50+X10 in the table in Section 13 [description] corrected to DPDT, 24 V AC/DC, 2A (from SPDT, 12VDC, 2A)

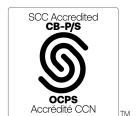


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ANNEX

Bacharach® X50 – Fixed Gas Monitor: Model X50MB25

Description of Equipment:

Bacharach® X50 – Fixed Gas Monitor: Model X50MB25

Bacharach® X30 – Fixed Gas Monitor: Model X30MB25

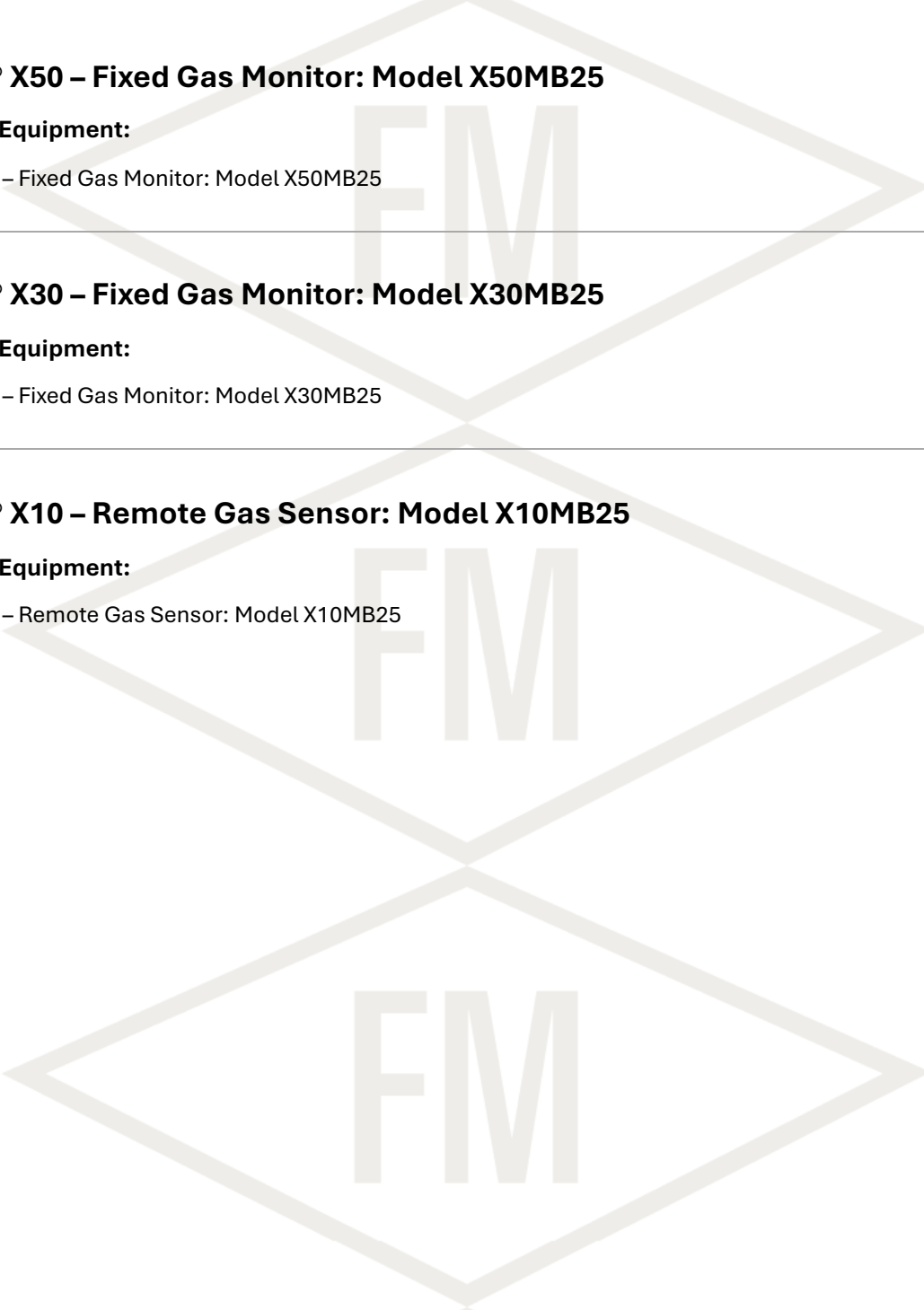
Description of Equipment:

Bacharach® X30 – Fixed Gas Monitor: Model X30MB25

Bacharach® X10 – Remote Gas Sensor: Model X10MB25

Description of Equipment:

Bacharach® X10 – Remote Gas Sensor: Model X10MB25



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