

Date: December 12, 2025

Subject: X30MB25A / X50MB25A and X30MB25 / X50MB25 Model Variations

FCC ID: P9R-MSAXSeries

IC: 324C-MSAXSeries

HVIN: X30MB25A/X50MB25A and X30MB25/X50MB25

To whom it may concern,

This document outlines variations between the Bacharach X30 – Refrigerant Gas Monitor (X30MB25A)/Bacharach X50 (X50MB25A) – Refrigerant Gas Monitor and the Bacharach X30 – Refrigerant Gas Monitor (X30MB25)/Bacharach X50 (X50MB25) – Refrigerant Gas Monitor models.

The Bacharach Refrigerant Gas Monitor models X30MB25A/X50MB25A and X30MB25/X50MB25 are a fixed, permanently installed devices that can be configured to detect various refrigerant gases. Local user notification of alarms and gas readings is provided via audible alerts and multi-color LEDs. Remote notification is provided via a Bluetooth (BT) connected App which displays gas readings and general product information.

The X-Series X30MB25A/X50MB25A and X30MB25/X50MB25 models utilize BT Low Energy (BLE) connectivity for connection to a locally connected App and can be used for notification, calibration, configuration, and setup among some of its features.

Bacharach X50 (X50MB25A & X50MB25) – Refrigerant Gas Monitor:

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.

Bacharach X30 (X30M25A & X30MB25) – Refrigerant Gas Monitor:

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.

Specific Parameter Comparison between X30 and X50 Models:

Parameter	X30 (MB25 & MB25A)	X50 (MB25 & MB25A)
Supply Voltage	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	8 W (333 mA @ 24 VDC)	14 W (583 mA @ 24 VDC)
Analog Outputs	1 4–20 mA, 1–5 V, or 2–10 V (configurable)	2 4–20 mA, 1–5 V, or 2–10 V (configurable)
Power Outputs	1 24 VAC/DC	1 24 VAC/DC
Digital Communications	Modbus	Modbus
Relays	1	4
Sensor	Integrated	Integrated, Remote, or Dual
Firmware	No Variation	No Variation
Bluetooth Connectivity (BLE	Yes	Yes

Specific Parameter Comparison between MB25 and MB25A Models:

Parameter	X30MB25 / X50MB25	X30MB25A / X50MB25A
Crystal	Alternate Manufacturer 32 MHz, 8 pf, SMD	Alternate Manufacturer 32 MHz, 8 pf, SMD
MCU/BT	No Variation	No Variation
Antenna	No Variation	No Variation

**X50 (X50MB25A &
X50MB25):**
Size: 164x160x84mm
Weight: 480g

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X30 (X30MB25A & X30MB25):

Size: 164x132x76mm

Weight: 260g

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Sincerely,

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