

## **BID SPECIFICATION FOR AUTOMATIC AND CONTINUOUS REFRIGERANT GAS AREA MONITOR FOR HOSPITALITY INDUSTRY**

Provide a stationary refrigerant gas leak monitor system designed to alarm at a specified level of refrigerant gas in monitoring areas. The monitor equipment shall be self-contained wall mounted device that mounts flush to the wall in a 3-gang electrical back box (DO NOT use electrical junction boxes), with onboard sensor, in the area where refrigerant gases are most likely to concentrate.

The refrigerant gas monitor shall meet the following specifications:

1. Coverage: single sensor onboard
2. Sensor Type: Semiconductor sensor.
3. Gases Detected: Refrigerants (HFCs, CFCs, and HCFCs, HFOs) such as R-410A, R-32, R-404A, R-407C
4. Detectable Range: 400 to 10,000 ppm
5. Alarm activation point: 500, 1,000 or 2,000 ppm (low alarm), and 2,000 or 4,000 ppm (high alarm)
6. Operating Temperature: 32°-102°F / 0°-50°C
7. Ambient Humidity: 0% to 90% RH (non-condensing).
8. Sampling Mode: continuous
9. Alarms: 2 levels
10. Power Status Indicator: Green LED
11. Alarm Status Indicator: Red LED, audible alarm, Modbus register
12. Fault Status Indication: Amber LED, Modbus register diagnostics
13. Alarms: onboard audible and visual alarm indicators, Modbus registers
14. Alarm silence switch: magnetic switch, activated by magnetic wand (included with device)
15. Alarm delay: user selectable 0, 5, 10, 15 minutes
16. Alarm reset: user selectable to be either manual or automatic
17. Audible Alarm shall be enabled or disabled via DIP switch or Modbus register
18. Power: 100-240 VAC, 50/60 Hz, 4W max.

## 19. Communications:

- i. 2 x SPDT relays: low alarm and high alarm / fault, normal or failsafe, configurable
- ii. Modbus RTU; Baud rate 9,600 or 19,200, configurable

20. Size: 6 x 4.1 x 1.75 inches – 8oz. (150 x 105 x 45 mm, 230g)

21. Certification: CE, UL/CSA/IEC/EN 61010-1

22. Manufacturer: Bacharach model MVR-300

23. Provide local alarm within the occupied space to sound if refrigerant vapor concentration exceeds threshold. Alarm shall provide a visual and an audible alarm with a sound pressure level of at least 80 dB at 12” (30cm).

24. Warranty: One (1) year.