



Critical Environment Technologies

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ENGINEERING SPECIFICATION SAMPLE # MAC2-3

Refrigerant Detection System

Supply a single channel gas detection controller, model MAC-B-N, for Refrigerant monitoring, housed in a rugged, wall mount, drip-proof PVC enclosure with hinged, secured door. System power shall be 24 VDC or 24 VAC (nominal) or optional 120 VAC. Supply a remote mount gas detection transmitter with one integral solid state non-specific refrigerant sensor. The sensor shall be calibrated for the target refrigerant gas, a correlation gas may be used. Standard measurement range shall be 0 - 2000 ppm. Area of monitoring coverage is up to 5,000 square feet per sensor.

The monitor shall provide LED indication for power, low alarm, high alarm, and fault condition, audible alarm with internal on/off switch and two S.P.D.T. dry contact alarm relays rated 5 amps at 240 VAC each. There shall be an LCD digital display of concentration. The system must be accurate enough to meet government workplace hazardous gas exposure standards. The system shall also provide user adjustable time delays for "delays on make" and "delays on break" to allow custom configuration of fan control by the system relays, if desired.

The remote refrigerant transmitter installation height shall be 6 to 12 inches from the floor.

System operation shall be as follows: Upon detection of 500 ppm refrigerant (low level alarm), a visual alarm will be indicated on the front panel and the "Low" alarm relay will be activated immediately to activate exhaust fan(s). Upon detection of 1000 ppm refrigerant (high level alarm), a visual alarm will be indicated on the front panel, the "High" alarm relay shall activate immediately and the front door mounted audible alarm shall be activated. An internal on/off switch can silence the audible alarm.

The contractor shall provide a complete system, including all wiring, conduit and interconnection required for a successful installation, as per manufacturer's specifications.

Approved manufacturer:

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