



## QIRF

### *Refrigerant Sensor*

The QIRF refrigerant gas detectors are configured to meet the international Mechanical Code, ASHRAE 15, and B52 requirements. Infrared technology facilitates specific gas type refrigerant detection without any cross-sensitive interferences. Sensor housings are thermally controlled at elevated temperatures to eliminate errors due to condensate formation and temperature fluctuations. This allows operation in temperatures from -49°F to 149°F (-45 to 65°C). This series has the option of being connected to either the M-Controller or Q4C controller via RS-485 digital communication for a cost effective installation method. Controllers can be equipped with internal and external horns and strobes to alert personnel prior to entering the hazardous area. Consult an ACI representative for specific gases.



**SPECIFICATIONS**

<b>Supply Voltage</b>	+18 to 30 VDC or 15 to 24 VAC
<b>Outputs</b>	4-20 mA, +2-10 VDC, Digital RS-485, Modbus
<b>Accuracy/Repeatability</b>	+/- 3% of Reading/+/- 1.0% of full scale
<b>Gas Measurement Range</b>	0 to 100 ppm (R123)/0-1000 ppm (all other refrigerants)
<b>Temperature Range</b>	-45 to 65°C (-49 to 149°F)
<b>Operating Humidity</b>	5 to 95% Continuous, 0 to 99% Intermittent (based on non-condensing)
<b>Operating Pressure Range</b>	Atmospheric +/- 10%
<b>Sensor Type</b>	Infra-Red Temperature Controlled
<b>Response Time</b>	Less than 30 seconds typical for a 90% step change
<b>Sensor Life Span</b>	14 years typical (under normal conditions)
<b>Sensor Coverage</b>	7,500 square feet (max)
<b>Mounting Height</b>	1 foot above floor
<b>Relays</b>	(3) SPDT, 1A maximum @ 30 VDC and 0.3A maximum @ 125 VAC (for resistive loads)
<b>Buzzer Rating</b>	Rated for 80 dB @ 10 cm, 2700 Hz
<b>Enclosure Materials</b>	Polycarbonate/ABS blend IP66, NEMA 4X, 12, 13
<b>Keypad</b>	4 magnetic sensors with magnet tool
<b>Indicators</b>	(5) Red LED's for Relay Status; 2x8 character LCD display with backlight
<b>Product Dimensions</b>	(H) 4.72" (W) 7.87" (D) 3.54"

**ORDERING**

Select one Gas Type (A).

**A Gas Type**

- 0R22x** (Gas Type: R22) (Measurement Range: 0-1000 ppm)
- 123x** (Gas Type: R123) (Measurement Range: 0-100 ppm)
- 134Ax** (Gas Type: R134a) (Measurement Range: 0-1000 ppm)
- 404Ax** (Gas Type: R404a) (Measurement Range: 0-1000 ppm)
- 407Cx** (Gas Type: R407a) (Measurement Range: 0-1000 ppm)
- 408Ax** (Gas Type: R408a) (Measurement Range: 0-1000 ppm)
- 410Ax** (Gas Type: R410a) (Measurement Range: 0-1000 ppm)
- 507Ax** (Gas Type: R507a) (Measurement Range: 0-1000 ppm)
- R114x** (Gas Type: R114) (Measurement Range: 0-1000 ppm)
- R116x** (Gas Type: R116) (Measurement Range: 0-1000 ppm)
- 0R11x** (Gas Type: R11) (Measurement Range: 0-1000 ppm)
- R438Ax** (Gas Type: R438a) (Measurement Range: 0-1000 ppm)

**BUILD PART NUMBER**

After completing (A) from the above table, fill in the Part Number Table below. The "Sensor Series" & "Revision" (X) & (0) are factory defaults. An example part number is offered.

<b>QIRF</b>	—	<b>A</b>	—	<b>X</b>	—	<b>0</b>
SENSOR SERIES		A		FACTORY PROVIDED		FACTORY PROVIDED

EXAMPLE: QIRF - 134Ax - X - 0