

Calibration via  
a non-intrusive,  
non-proprietary,  
& straight forward  
procedure



Relay status LEDs

Three user  
configurable  
relays

Sensing technology:  
Infrared noncontact/  
nondepleting form  
of concentration  
measurement

Life Expectancy:  
14 years (typical)

h: 4.72" W: 7.87" d: 3.54"

#### GASES COVERED

|       |       |       |
|-------|-------|-------|
| R22   | R408a | R11   |
| R123  | R410a | R12   |
| R134a | R407a | R438a |
| R404a | R507a | R116  |
| R407c | R114  |       |

## Freons and refrigerants

The QIRF Freon gas detectors are configured to meet the international Mechanical Code, ASHRAE 15, and B52 requirements. Infrared technology facilitates specific gas type Freon detection without any cross-sensitive interferences. Sensor housings are thermally controlled at elevated temperatures to eliminate errors due to condensate formation and from temperature fluctuations allowing operation in temperatures from -45°C 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 ACI for specific gases.

The QIRF Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI's Sensors & Transmitters catalog or can be found on ACI's web site, which is: [www.workaci.com](http://www.workaci.com).

## SPECIFICATIONS

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

## ORDERING

**BUILD YOUR PART#**

EXAMPLE

QIRF — 134AX — 0

QIRF — —

step 1

A Gas

b OPTIONS

Select gas, and options.

|               |                   |                                |
|---------------|-------------------|--------------------------------|
| <b>0R22x</b>  | (Gas Type: R22)   | (Measurement Range: 0-1000PPM) |
| <b>123x</b>   | (Gas Type: R123)  | (Measurement Range: 0-100PPM)  |
| <b>134Ax</b>  | (Gas Type: R134a) | (Measurement Range: 0-1000PPM) |
| <b>404Ax</b>  | (Gas Type: R404a) | (Measurement Range: 0-1000PPM) |
| <b>407Cx</b>  | (Gas Type: R407c) | (Measurement Range: 0-1000PPM) |
| <b>407Ax</b>  | (Gas Type: R407a) | (Measurement Range: 0-1000PPM) |
| <b>408Ax</b>  | (Gas Type: R408a) | (Measurement Range: 0-1000PPM) |
| <b>410Ax</b>  | (Gas Type: R410a) | (Measurement Range: 0-1000PPM) |
| <b>507Ax</b>  | (Gas Type: R507a) | (Measurement Range: 0-1000PPM) |
| <b>R114x</b>  | (Gas Type: R114)  | (Measurement Range: 0-1000PPM) |
| <b>R116x</b>  | (Gas Type: R116)  | (Measurement Range: 0-1000PPM) |
| <b>0R11x</b>  | (Gas Type: R11)   | (Measurement Range: 0-1000PPM) |
| <b>0R12X</b>  | (Gas Type: R12)   | (Measurement Range: 0-1000PPM) |
| <b>R438Ax</b> | (Gas Type: R438a) | (Measurement Range: 0-1000PPM) |

- ( 0 ) No Selection (Standard)  
( P ) Sample Pump

