



### DESCRIPTION

The **ACI Model QIRF Single Zone Refrigerant Gas Monitor** is designed for continuous monitoring of R11, R22, R123, R134a, R404a or R507a refrigerants. Three adjustable alarm levels with relay output designate leak, spill, and evacuation concentrations. Gas alarms and system fault conditions are indicated by visual and audible alarms. The **Model QIRF** provides a system fault relay output and a 4 to 20 mA output for integration with remote monitoring equipment or building management systems. The **QIRF** Single Zone Refrigerant Gas Monitor is designed to be used as part of a control system that helps to prevent the formation of a hazardous environment when properly installed and maintained.



QIRF Series

### FEATURES

- **Three alarm levels with SPDT alarm contacts**
- **4-20 mA output signal**
- **Audible and visual alarm indication**
- **Infrared sensing technology**
- **Alarm-silence button**
- **NEMA 4 (IP66), 12, 13**
- **1/2" barbed fitting (tubing not included)**

| SPECIFICATIONS                |  |
|-------------------------------|--|
| <b>Supply Voltage</b>         | 18 to 30 VDC @ 1000 mA,<br>15 to 24 VAC @ 24 VA  |
| <b>Signal Output</b>          | 4-20 mA 600Ω or 2-10 VDC<br>(jumper selectable)  |
| <b>Accuracy</b>               | ±3% of reading   |
| <b>Measurement Range</b>      | 0-100 ppm R-123, 0-1000 ppm All<br>others  |
| <b>Sensing Technology</b>     | Single pass, infrared non-dispersive   |
| <b>Gases Detected</b>         | (Model Specific) R-11, R-22,<br>R-123, R-134a, R-404a, R-407c,<br>R-408a, R-410a, R-114, R-116,<br>R-438, R-507a |
| <b>Alarm Relay Output</b>     | 3 alarm relays, 1 fault relay, SPDT,<br>30 VDC @ 1.0 A; 0.3 A @ 125 VAC  |
| <b>Communication Protocol</b> | RS-485   |
| <b>Display</b>                | 2 x 8 character Backlight, and five<br>LEDs  |
| <b>Buzzer</b>                 | 80 dB  |
| <b>Operating Humidity</b>     | 5% to 95% RH non-condensing  |
| <b>Operating Temperature</b>  | -49° to 149°F (-45° to 65°C)   |
| <b>Dimensions</b>             | 4.7"H x 3.5"D x 7.9"L<br>(12.0 x 9.0 x 20.0 cm)  |
| <b>Weight</b>                 | 1.5 lb (0.68 Kg)   |
| <b>Warranty</b>               | 2 years  |

| INSTALLATION   |
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| The monitor should be located outside the mechanical room and readily accessible for verification and servicing. The sample line should be located as close as possible to the source of a potential leak. |

| WIRING   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
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| TBI  | Output<br>2-10VDC<br>Jump J5 Pins 2-3<br>4-20mA<br>Jump J5 Pins 1-2 |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
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|  |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| 2  | 4   | R | S | + | C |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| 4  | V   | S | S | i | O |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| V  | V   | 4 | 4 | g | M |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| A  | A   | 8 | 8 | n | S |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| C  | C   | 5 | 5 | a | i |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
| +  | -   | A | B | l | g |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |  |   |  |  |  |  |  |   |  |  |  |  |  |   |  |
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# GAS & SPECIALTY SENSORS

## REFRIGERANT GAS MONITOR

### *QIRF SERIES*

#### ORDERING INFORMATION

|                     |   |
|---------------------|---|
| <b>QIRF-0R11X-0</b> | Single Zone Refrigerant monitor of R-11   |
| <b>QIRF-0R22X-0</b> | Single Zone Refrigerant monitor of R-22   |
| <b>QIRF-123X-0</b>  | Single Zone Refrigerant monitor of R-123  |
| <b>QIRF-134AX-0</b> | Single Zone Refrigerant monitor of R-134a |
| <b>QIRF-404AX-0</b> | Single Zone Refrigerant monitor of R-404a |
| <b>QIRF-407CX-0</b> | Single Zone Refrigerant monitor of R-407c |
| <b>QIRF-410AX-0</b> | Single Zone Refrigerant monitor of R-410a |
| <b>QIRF-507AX-0</b> | Single Zone Refrigerant monitor of R-507a |
| <b>QIRF-R114X-0</b> | Single Zone Refrigerant monitor of R-114  |
| <b>QIRF-R116X-0</b> | Single Zone Refrigerant monitor of R-116  |

#### RELATED PRODUCTS

|                  |  |
|------------------|--|
| <b>T-101</b>     | 1/4" OD black poly tubing, 1 coil, 250 ft (76 m) |
| <b>NIOSHSCBA</b> | Self-contained breathing apparatus kit           |
| <b>691-K0A</b>   | Control transformer, 120:24 VAC, 40 VA, Class 2  |
| <b>DCP-1.5-W</b> | Power supply, 24 VAC IN to 24 VDC OUT            |