GG-R

SYNTHETIC REFRIGERANT SENSOR

Key Features

- R22, R134a, R404a, R507a, R448a and other refrigerant gases detected
- Gas-specific infrared sensor technology
- Industry standard linear 4-20 mA output
- Corrosion, weather, and chemical resistant sensor enclosure
- Sensor designed to adapt to any harsh environment from -50°F to +120°F
- Real-time continuous monitoring
- 0-500 ppm and 0-1,000 ppm ranges available
- Self-diagnostics of sensor elements for fail-safe operation
- Meets California Air Resources Board specifications with 0-500 ppm range

HFO's, HFC's, CFC's and HCFC's.
Industrial strength refrigerant leak detection.

The GG-R utilizes proven infrared sensor technology for fast and accurate leak detection. With no moving parts and no cells to replace, the GG-R provides real-time continuous monitoring and inexpensive long-term operating costs.

The GG-R is refrigerant gas specific, so false alarms from floor cleaners and food off-gassing is nonexistent. The output signal is not affected by EMI/RFI, or moisture. R22, R134, R507, R404, R407, R410, R448, R422D are a few common refrigerants the GG-R sensor can detect.

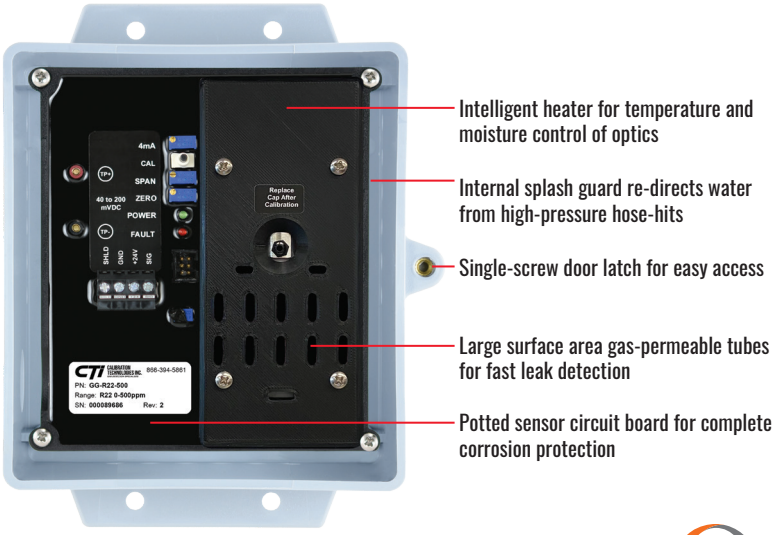
The GG-R provides an industry standard linear 4-20 mA output signal compatible with most gas detection systems and PLCs. The high-quality polycarbonate enclosure offer excellent chemical corrosion protection and high impact resistance.

Applications

- Refrigeration Systems
- Food Processing areas
- Perimeter Monitoring
- Pharmaceuticals
- Sea Vessels
- Bottling Plants
- Breweries
- Ice Rinks
- Supermarkets
- Compressor Rooms

Benefits

- Extremely long life
- Low cost of ownership
- Simple operation
- Rugged and reliable



CTI GAS DETECTION SPECIALISTS

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The standard **GG-R** sensor comes equipped with a corrosion proof enclosure. With only one sensor for any application; designing, ordering, and maintaining your refrigerant monitoring system is simple. The 0-500 ppm model provides the highest accuracy and lowest leak detection ability starting at 10 ppm, to meet the California Air Resources Board specifications.

The adaptive temperature control system allows the **GG-R** to automatically adjust to temperature fluctuations. Each circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion. A specially vented chemical-resistant polycarbonate enclosure protects the sensor from accidental damage, weather, and direct hose-hits from clean-up crews.

Ordering Information

The **GG-R** is delivered calibrated and ready to install. Use the model numbers below to order. Add "-ST" for stainless steel enclosure.

Order #:	*0-500 ppm	0-1000 ppm
	GG-R123-500	GG-R123-1000
	GG-R123a-500	GG-R123a-1000
	GG-R1234YF-500	GG-R1234YF-1000
	GG-R1234ZE-500	GG-R1234ZE-1000
	GG-R1233ZD-500	GG-R1233ZD-1000
	GG-R134a-500	GG-R134a-1000
	GG-R22-500	GG-R22-1000
	GG-R32-500	GG-R32-1000
	GG-R404A-500	GG-R404A-1000
	GG-R407A-500	GG-R407A-1000
	GG-R407C-500	GG-R407C-1000
	GG-R407F-500	GG-R407F-1000
	GG-R410A-500	GG-R410A-1000
	GG-R422A-500	GG-R422A-1000
	GG-R422D-500	GG-R422D-1000
	GG-R434A-500	GG-R434A-1000
	GG-R438A-500	GG-R438A-1000
	GG-R448A-500	GG-R448A-1000
	GG-R449A-500	GG-R449A-1000
	GG-R454A-500	GG-R454A-1000
	GG-R454B-500	GG-R454B-1000
	GG-R454C-500	GG-R454C-1000
	GG-R507A-500	GG-R507A-1000
	GG-R513A-500	GG-R513A-1000
	GG-R514A-500	GG-R514A-1000

Stainless steel enclosure option

*Meets CARB specifications.

Other gases available. Contact us if your target gas is not listed.

SPECIFICATIONS

Due to ongoing research and product improvement, specifications are subject to change

Input Power:
+24 VDC, 330mA

Detection Principle:
NDIR (Non-Dispersive Infrared)

Detection Method:
Diffusion

Gases:
R22, R123, R123a, R134a, R32, R407, R404, R410, R422D, R434, R438, R448, R449, R454, R507, R513, R514, R123ZD, R1234ZE, R1234YF
Contact us for more HFO/HFC/CFC/HCFC gases

Ranges:
0-500 ppm
0-1,000 ppm

Output Signal:
Linear 4-20 mA (max input impedance: 700 Ohms)

Linearity:
+/- 3% of full-scale

Repeatability:
+/- 6% of full-scale

Response Time:
T50 = less than 90 seconds
T90 = less than 180 seconds

Accuracy:
+/- 4% of full-scale

Zero Drift:
Less than 1% of full-scale per month, non-cumulative

Span Drift:
Less than 1% of full-scale per month, non-cumulative

Temperature Range:
-50°F to +120°F (-45°C to +49°C)

Humidity Range:
5% to 100% condensing

Wiring Connections:
3 conductor, shielded, stranded, 20 AWG cable (General Cable C2525A or equivalent) up to 1500 ft

Enclosure:
NEMA 3RX injection-molded, washdown-duty polycarbonate sensor housing with hinged lid and captive screw. For non-classified areas. Optional 316 18 GA, NEMA 3RX washdown-duty stainless steel housing with hinged lid and captive screw. For non-classified areas.

Terminal Block Plugs: (Field Wiring)
26-12 AWG, torque 4.5 lbs-in

Dimensions:
7.5" high x 6.5" wide x 3.75" deep

Weight:
2.6 lbs

Certification:
SGS listed to UL 61010-1, and CSA C22.2 No. 61010-1

Warranty:
2-years