GG-VL2-R

VENT LINE SYNTHETIC REFRIGERANT SENSOR

Key Features

- Detects R22, R134a, R404A, R507A, and other CFC / HFC / HCFC gases
- Continuous monitoring of refrigeration system relief valves
- Industry standard 4-20 mA output
- Durable and long life solid-state sensor
- Corrosion, weather, and chemical resistant transmitter enclosure
- Temperature compensation for harsh environments from -46°F to +140°F
- Sensor and preamp in one assembly - only one cable required
- 0-1% (0-10,000 ppm) with a 50% (5000 ppm) deadband
- Innovative sensor housing allows for simple & low cost sensor replacement
- New design allows for easy calibration from inside the enclosure

Detection of expensive refrigerant loss.
The new GG-VL2-R keeps a close eye on your SRV's.

The GG-VL2-R utilizes a rugged solid-state sensor technology for fast leak detection and long life. The standard detection range of the GG-VL2-R provides real-time continuous monitoring of refrigerant leaks in your high-pressure relief vent header.

High concentrations of refrigerant gases in your vent line are usually indications of a leaking valve or system overpressure. This could mean costly repairs or plant downtime, not to mention loss of refrigerant. Early detection can save money and protect equipment and personnel.

The GG-VL2-R sensor provides an industry standard 4-20 mA output signal compatible with most gas detection systems and PLCs. Expect long sensor life and no zero-signal drift over time. Minimum maintenance requirements include only a calibration twice per year.

Applications

- Refrigeration System Vent Lines (outdoor installations only)

Benefits

- Low cost
- Rugged and reliable
- Easy to calibrate
- Simple sensor replacement
- Typical sensor life 5 years

CALIBRATION TECHNOLOGIES INC.
GAS DETECTION SPECIALISTS

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The **GG-VL2-R** sensor is designed for outdoor mounting at 3' to 5' above the roof line on the relief discharge to atmosphere. The ½" pipe nipple of the supplied mounting kit should be welded or threaded to the relief discharge.

The 304 stainless steel enclosure provides excellent corrosion protection against any type of weather. Every transmitter circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion. Built-in temperature compensation helps prevent false alarms during the coldest of winters and hottest of summers. The life of the sensor is minimally affected by exposure to refrigerant gases.

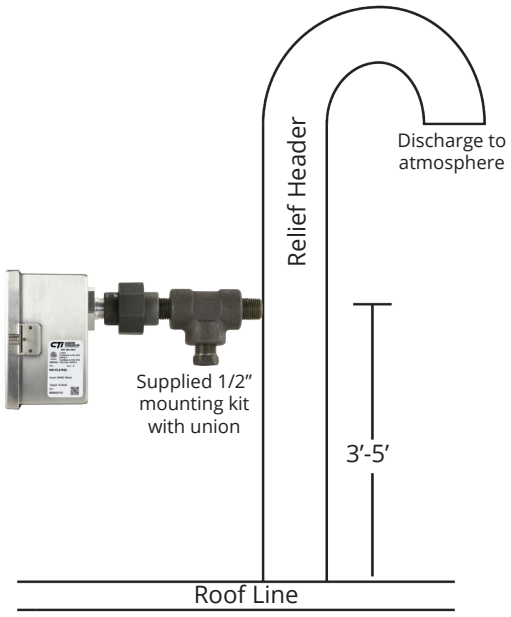
The **GG-VL2-R** is intended to be a "leak detector" and not an instrument for calculating refrigerant loss due to the non-linear characteristics of the solid-state sensor technology.

R507A 1% is one of the few halo carbons that is easily obtainable. Since the **GG-VL2-R** sensor element has similar sensitivities to most halo carbons, we recommend using R507A 1% as calibration gas.

Ordering Information

The GG-VL2-R is factory calibrated 0-1% full-scale with R507A calibration gas and has a similar sensitivity to most other halocarbons. If necessary, it can be field calibrated with the target gas (at 1% concentrations).

Order #: GG-VL2-R
GG-VL2-R-RS (replacement sensor)



SPECIFICATIONS

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

Input Power:
+24 VDC, 85 mA

Detection Principle:
Solid-state

Detection Method:
Diffusion

Gases:
R22, R134a, R404A, R507A, R407C, R410A, R449A, R422D, R401A, R402, R245fa
Many other halo carbon gases available - call for more information

Ranges:
0/1% (10,000 ppm) with a 50% deadband

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

Repeatability:
+/- 10% of full-scale

Response Time:
T90 = less than 30 seconds

Accuracy:
+/- 25% at full-scale

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

Span Drift:
Less than 25% of full-scale per year, non-cumulative

Temperature Range:
-46°F to +140°F (-43°C to +60°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

Terminal Block Plugs: (Field Wiring)
12-26 AWG, torque 4 lbs-in

Enclosure:
NEMA 4X 316 stainless steel gasketed housing. Captive screw in hinged lid. For non-classified areas

Dimensions:
5.48" high x 4.9" wide x 2.93" deep

Weight:
5 lbs (includes mounting kit)

Certification:
SGS listed to UL 61010-1, and CSA C22.2 No. 61010-1-12

Warranty:
2-years (including sensor element)

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