GG-VL-R

VENT LINE
REFRIGERANT SENSOR

Key Features

- Detects R22, R134a, R404a, R507a, and other CFC / HFC / HCFC gases
- Continuous monitoring of refrigeration system relief valves
- Industry standard linear 4/20 mA output
- Durable and long life solid-state sensor
- Corrosion, weather, and chemical resistant transmitter enclosure
- Sensor designed for harsh environments from -46°F to +140°F
- Sensor and preamp in one assembly - only one cable required
- 0-1% (0-10,000ppm) allows for wide range of alarm setpoints
- Ability to detect "weeping valves" to prevent refrigerant loss over time
- Innovative sensor housing allows for simple & low cost sensor replacement

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From unlikely high-pressure releases to the inevitable "weepers",
the CTI Vent Line sensor will notify you ... before your neighbors do.

The GG-VL-R utilizes a rugged solid-state sensor technology for fast leak detection and long life. The standard detection range of the GG-VL-R provides real-time continuous monitoring of refrigerant concentrations 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-VL-R sensor provides an industry standard linear 4/20 mA output signal compatible with most gas detection systems and PLCs. Expect long sensor life and virtually zero signal drift over time. Minimum maintenance requirements include only a response check twice per year.

Applications

- Refrigeration System Vent Lines (outdoor installations only)

Benefits

- Low cost
- Rugged and reliable
- Simple sensor replacement
- Typical sensor life 5 to 7 years

CALIBRATION
TECHNOLOGIES INC.
GAS DETECTION SPECIALISTS

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The **GG-VL-R** sensor is designed for outdoor mounting. The sensor is recommended to be mounted 3' to 5' above the roofline on the relief discharge to atmosphere. The 1/2" pipe nipple of the supplied mounting kit should be welded or threaded to the relief discharge. The innovative mounting kit with union allows for easy and low cost sensor replacement.

Reliable & robust

The stainless steel enclosure provides the ultimate protection against any type of weather and will stay corrosion free. Every transmitter circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion. Since the solid-state sensor is designed to endure the coldest of winters and hottest of summers, the output signal is not affected by extreme temperature variations. The life of the sensor is not affected by exposure to refrigerant gases.

Ordering Information

The **GG-VL-R** sensor kit is delivered calibrated and ready to install. The kit includes the transmitter/sensor assembly and mounting kit. Use the model numbers below to order.

Order #: GG-VL-R22
GG-VL-R134a
GG-VL-R404a
GG-VL-R507a
GG-VL-Rxxx-RS (replacement sensor)

Relief Header
Discharge to atmosphere
Supplied 1/2" mounting kit with union
3'-5'
Roof Line
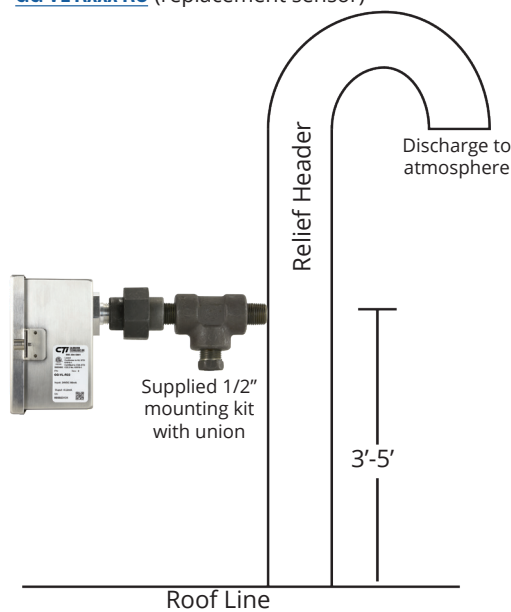
SPECIFICATIONS

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

Input Power:
+24 VDC, 250 mA

Detection Principle:
Solid-state

Detection Method:
Diffusion

Gases:
R22, R134a, R404a, and R507a
Other gases available. Call for more information

Ranges:
0/1% (10,000 ppm)

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

Linearity:
+/- 5% of full-scale

Repeatability:
+/- 5% of full-scale

Response Time:
T90 = less than 30 seconds

Accuracy:
+/- 5% of full-scale, but dependent on calibration gas accuracy and time since last calibration

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:
-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:
4.8" high x 4.72" wide x 3.35" deep

Weight:
5 lbs (includes mounting kit)

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

Warranty:
2 years (including sensor element)