GG-VL2-CO_2

VENT LINE CARBON DIOXIDE SENSOR

Key Features

- Carbon dioxide-selective infrared sensor technology prevents false alarms
- Continuous monitoring of refrigeration system relief valves
- Rugged, long life, and low power catalytic-bead sensor
- Designed for harsh environments (-40°F to +140°F)
- Sensor and preamp in one assembly
- 0-5% CO2 (0-50,000ppm) detection range
- Ability to detect "weeping valves" to prevent refrigerant loss over time
- Sensor housing allows for easy sensor replacement and calibration
- 316 stainless steel 18 gauge enclosure
- Industry standard 24VDC, linear 4/20 mA output

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

The GG Vent Line 2 utilizes a rugged infrared sensor technology for fast leak detection and long life. The standard 0-5% CO2 detection range of the GG-VL2-CO2 provides real-time continuous monitoring of carbon dioxide concentrations in your high-pressure relief vent header.

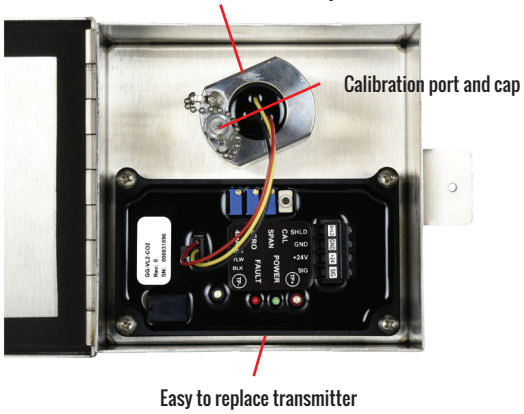
High concentrations of carbon dioxide gases in your vent line are usually indications of a leaking valve or system overpressure. This could mean costly repairs or plant downtime, not to mention loss of refrigerant and regulatory fines. Early detection can save money while also protecting equipment, product,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

The GG-VL2-CO2 provides an industry standard linear 4/20 mA output signal compatible with most gas detection systems and PLCs. Expect long sensor life and no zero-signal drift over time.

Applications

- Refrigeration System Vent Lines
- CO2 process systems

Easy and safer calibration and sensor replacement with all access within sensor enclosure



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-VL2-CO2** is designed for indoor or outdoor mounting. It is recommended that the sensor be mounted 3′ to 5′ above the roofline on the relief discharge to atmosphere. However, the sensor can be installed indoors as long as the 1/2″ plug remains installed. The further the sensor is from a fresh leak source, the longer the CO2 gas will linger which can result in a long recovery time from a CO2 discharge or weeping valve.

The 1/2″ pipe nipple of the supplied mounting kit should be welded or threaded to the relief discharge. The sensor is accessible from inside the enclosure, so replacement is easy.

Reliable & robust

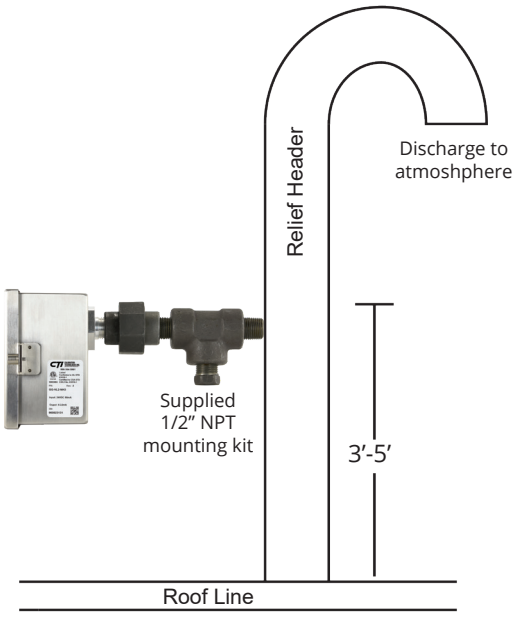
Every transmitter circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion. The life of the sensor is not affected by exposure to refrigerant gases or extreme temperature variations.

Ordering Information

The **GG-VL2-CO2** sensor kit is delivered calibrated and ready to install. The kit includes the transmitter/sensor/enclosure assembly and mounting kit. Use the model numbers below to order.

Order #: GG-VL2-CO2
GG-VL2-CO2-RS (replacement sensor)

replacement sensor element



SPECIFICATIONS

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

Input Power:
+24 VDC, 60 mA

Detection Principle:
Infrared (NDIR dual beam)

Detection Method:
Diffusion

Gases:
Carbon Dioxide (CO2)

Ranges:
0/5% (0 - 50,000 ppm)

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

Linearity:
+/- 3% of full-scale

Repeatability:
+/- 2% of full-scale

Response Time:
T90 = less than 30 seconds

Accuracy:
+/- 2% of full-scale, but dependent on calibration gas accuracy and time since last calibration

Zero Drift:
Less than 0.1% of full-scale per month, non-cumulative

Span Drift:
Less than 2% of full-scale per month, non-cumulative

Temperature Range:
-40°F to +140°F (-40°C to +60°C)

Humidity Range:
0% to 95% non-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 (316) gasketed housing. Captive screw in hinged lid. For non-classified areas

Dimensions:
4.8″ high x 4.72″ wide x 3.35″ deep

Weight:
4 lbs (includes mounting kit)

Warranty:
2 years (including sensor element)

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