GG-VL2-NH_3

VENT LINE AMMONIA SENSOR

Key Features

- New ammonia-selective cat-bead 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
- 0-1% NH3 (0-10,000ppm) 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 ammonia-selective catalytic bead sensor technology for fast leak detection and long life. The standard 0-1% NH3 detection range of the GG-VL2-NH3 provides real-time continuous monitoring of ammonia concentrations in your high-pressure relief vent header.

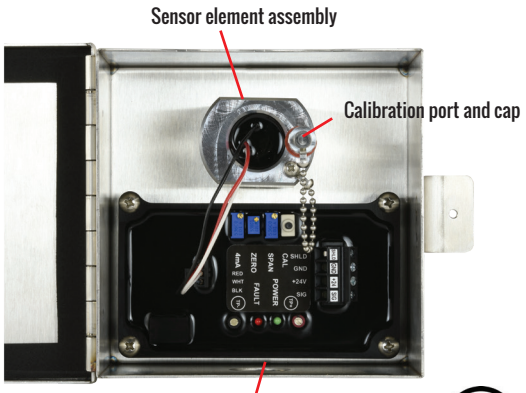
High concentrations of ammonia gases in your vent line are usually indications of a leaking valve or system overpressure. This could mean costly repairs or plant downtime, not to mention loss of refrigerant and regulatory fines. Early detection can save money while also protecting equipment, product,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

The GG-VL2-NH3 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

- Ammonia Refrigeration System Vent Lines

The new design allows for easy and safe calibration, plus component replacement from inside the enclosure. Gone are the days of breaking apart the piping!



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-NH3** is designed for outdoor mounting. We recommend that the sensor 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 into the relief discharge. The new enclosure design allows for an easier and safer way to calibrate the sensor and replace the sensor element or transmitter in the future.

Reliable & robust

The stainless steel enclosure provides ultimate protection against weather and will stay corrosion free. Every transmitter circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion.

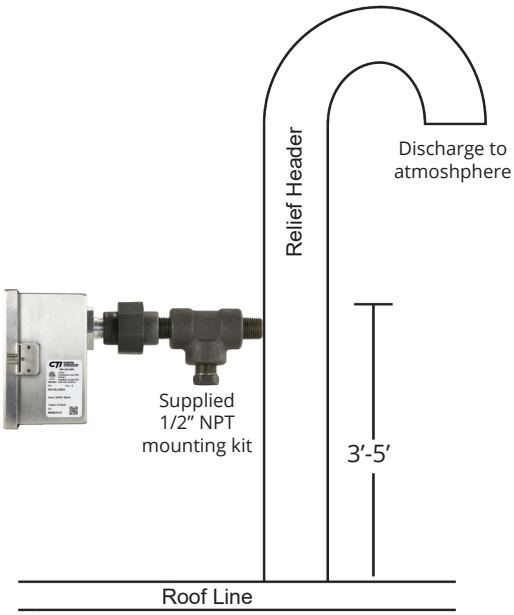
Since the catalytic-bead sensor is designed to endure the coldest of winters and hottest of summers, the output signal is not affected by extreme temperature variations. The life of the sensor is also not affected by the occasional exposure to high concentrations of ammonia gas.

Ordering Information

The **GG-VL2-NH3** 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-NH3
GG-VL2-NH3-RS (replacement sensor)

replacement sensor element



SPECIFICATIONS

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

Input Power:
+24 VDC, 80 mA

Detection Principle:
Catalytic Bead (NH3 selective)

Detection Method:
Diffusion

Gases:
Ammonia (NH3)

Ranges:
0/1% (0 - 10,000 ppm) with 0.25% NH3 deadband

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

Linearity:
+/- 2% of full-scale

Repeatability:
+/- 1% 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 1% of full-scale per month, non-cumulative

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