CALIBRATION TECHNOLOGIES INC.

Specialists in Gas Detection

Distributed By:

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GASGUARD VENT LINE AMMONIA SENSOR

Key Features

- Continuous monitoring of refrigeration system relief valves
- Industry standard linear 4/20 mA output
- Durability and long life of a 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

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

The GasGuard Vent Line utilizes a rugged solid-state sensor technology for fast leak detection and long life. The standard detection range of the GasGuard Vent Line 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. Either could mean costly repairs or plant downtime, not to mention loss of refrigerant. Early detection can save money and protect equipment and personnel.

The GasGuard Vent Line 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

- Ammonia Refrigeration System Vent Lines (outdoor installations only)

Benefits

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

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GasGuard Vent Line

The **GasGuard Vent Line** sensor 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 to the relief discharge. The innovative mounting kit with union allows for easy and low cost sensor replacement.

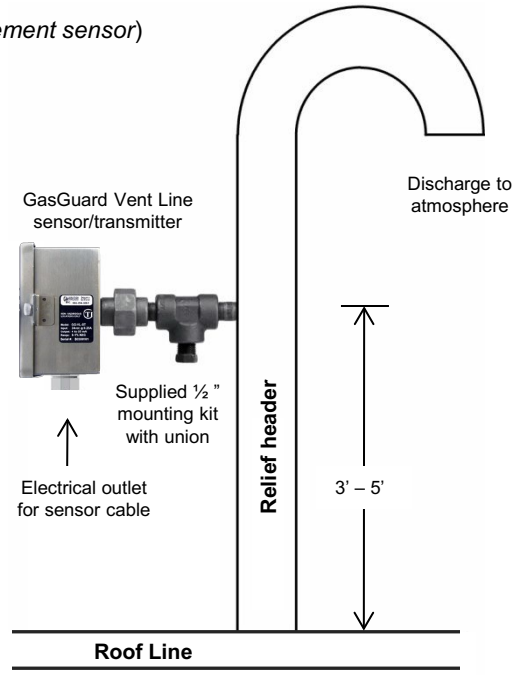
Reliable & robust

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 ammonia gases.

Ordering Information

The **GasGuard Vent Line** 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.

GG-VL-NH3
GG-VL-RS (*replacement sensor*)



SPECIFICATIONS

DUE TO ONGOING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE

DETECTION PRINCIPLE:
Solid-state

DETECTION METHOD:
Diffusion

GASES:
Ammonia (NH3)
Other gases also available

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

OUTPUT SIGNAL:
Linear 4/20 mA (max input impedance: 700 Ohms)

POWER SUPPLY:
+24 VDC, 250 mA

ACCURACY:
+/- 5% of value

ZERO DRIFT:
Less than 1% per month, non-cumulative

SPAN DRIFT:
Less than 1% of full-scale per month, non-cumulative

LINEARITY:
+/- 5% of full-scale

REPEATABILITY:
+/- 5% of full-scale

RESPONSE TIME:
T_{90} = less than 30 seconds

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

ENCLOSURE:
INEMA 4X stainless steel gasketed housing. Captive screw in hinged lid. For non-classified areas.

TEMPERATURE RANGE:
-46°F to +140°F (-43°C to +60°C)

HUMIDITY RANGE:
5% to 100% condensing

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

WEIGHT:
5 lbs (includes mounting kit)

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