GG-LEL2

COMBUSTIBLE GAS SENSOR

Key Features

- Explosion-proof enclosure for classified areas
- Useful for activation of electrical shunt-trip, ventilation, or fuel supply shutoff
- Industry standard linear 4/20 mA output
- Calibrated for desired combustible gas 0-100% LEL (specify target gas)
- Sensing element designed for long life in harsh industrial environments
- Designed to perform in temperatures of -40°F to +140°F
- Real-time continuous monitoring

Explosion prevention.
The GG-LEL2 is the last line of defense against catastrophic failure.

The GG-LEL2 utilizes catalytic-bead sensor technology with a matched pair of detector elements. When combustible vapors enter the sensor, the passive bead remains unchanged while the active detector bead catalyzes the oxidation of gas, generating heat and changing its resistance. The resulting change in resistance is accurately measured across the bridge circuit.

The GG-LEL2 sensor provides an industry standard linear 4/20 mA output signal proportional to 0-100% LEL of the target gas. The transmitter is compatible with most gas detection systems and PLCs.

Long sensor life with minimal span adjustment can be expected in most applications. The sensor is designed for simple calibration and is field replaceable.

Applications

- Mechanical Rooms
- Boiler Rooms
- Heat Treatment
- Tank Rooms
- Refrigeration Systems
- Cold Storage
- Pulp and Paper
- Chemical Plants
- Breweries
- Refineries
- Maintenance Garages
- Process Areas

Benefits

- Low cost explosion protection
- Long sensor life (5-7 yrs typical)
- Simple operation & calibration

CALIBRATION TECHNOLOGIES INC.
GAS DETECTION SPECIALISTS

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The **GG-LEL2** is designed to detect and monitor potentially explosive levels of combustible gas vapors in air within the range of 0-100% LEL.

A ¾" NPT threaded conduit entrance is provided on the top of the transmitter housing. Mounting tabs are provided for support of the **GG-LEL2**. Long sensor life can be expected in most mechanical room applications with a typical sensor life of 5-8 years. Field replaceable sensor element keeps long term maintenance simple and low cost.

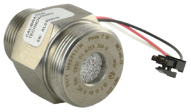
Measurable gases	Order # suffix
Ethane	C2H6
Ethylene	C2H4
Hydrogen	H2
Methane	CH4
N-butane	C4H10
N-hexane	C6H14
N-pentane	C5H12
Propane	C3H8

other gases not listed

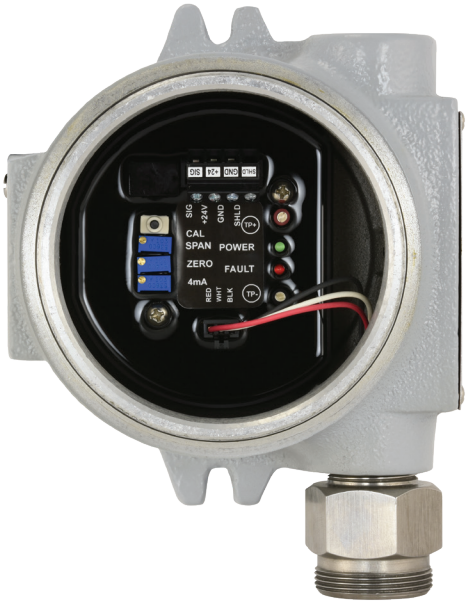
Ordering Information

The **GG-LEL2** is delivered calibrated 0-100% LEL for your target gas and ready to install. The assembly includes sensor and transmitter mounted inside the explosion proof housing. Use the model numbers below to order.

Order #: GG-LEL2-xxx (specify target gas)
GG-LEL2-NH3-RS (replacement sensor for ammonia)
GG-LEL2-RS (replacement sensor for all other gases)



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

Detection Method:
Diffusion

Gases:
Combustible gases listed above

Range:
0/100% LEL

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

Linearity:
+/- 0.5% of full-scale

Repeatability:
+/- 1% of full-scale

Response Time:
T50 = less than 20 seconds
T90 = less than 45 seconds

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

Zero Drift:
Less than 0.3% of full-scale per month, non-cumulative

Span Drift:
Application dependent, but generally less than 1% per month

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

Weight:
3.5 lbs

Warranty:
2 years (including replacement sensor head)

Enclosure:
Copper-free aluminum body, epoxy powder coat finish, neoprene gasket, for hazardous areas.

Sensor Head:
Stainless steel flameproof enclosure constructed ith an integral stainless steel sinter filter for the safe entry of the atmosphere being detected. ATEX Certificate CESI 01 ATEX 066 U

Warranty:
2 years (including sensor element)