

## GG-H2S-EXP

EXPLOSION-PROOF  
HYDROGEN SULFIDE SENSOR**Key Features**

- Explosion-proof enclosure for classified areas
- Hydrogen sulfide specific electrochemical sensor technology
- 0-50 ppm factory range
- Electronics potted to eliminate internal corrosion
- Industry standard 24VDC, linear 4-20 mA output
- Operating temperature from -4°F to +122°F
- Accurately monitor OSHA/NIOSH levels for personnel protection
- No false alarms from interference gases
- Real-time continuous monitoring for early leak detection

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**POISONOUS HYDROGEN SULFIDE GAS DETECTION.  
EXPLOSION-PROOF DESIGN.**


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The GG-H2S-EXP is designed for detection of hydrogen sulfide vapors in hazardous areas. The standard detection range of 0-50 ppm provides real-time continuous monitoring of concentrations accurately down to 5 ppm with no false alarms.

The GG-H2S-EXP utilizes a proven hydrogen sulfide specific electrochemical sensor for detecting poisonous H<sub>2</sub>S gas concentrations. No false alarms due to cross-sensitivities from other gases, and no false alarms from temperature or humidity fluctuations.

The GG-H2S-EXP provides an industry standard linear 4/20 mA output signal proportional to ppm concentration of hydrogen sulfide. Long sensor life with minimal span adjustment can be expected in most applications. The sensor is designed for simple calibration and the sensor head is easily field replaceable.

**Applications**

- Sewer Gas Monitoring
- Petroleum Refineries
- Paper Mills
- Tanneries

**Benefits**

- Low cost explosion protection
- No false alarms from interference gases
- Simple operation & calibration



Hydrogen sulfide gas is slightly heavier than air and will tend to accumulate in low-lying areas in poorly ventilated spaces. For optimum personnel protection (representative concentration reading that an employee would be exposed to), mount the sensor at a height in the breathing zone of the employees. It would typically be no higher than 4 to 5 feet off the ground, which also allows easy access. As a general rule of thumb, try to mount sensors within 30 feet of potential H2S sources.

The **GG-H2S-EXP** is intended for horn/strobe and ventilation activation, and is also useful for alarm outputs such as phone dialers and other alarm functions.

Typical sensor element life is 3 years, with minimal cross-sensitivity to other gases. Field replaceable sensor element keeps long term maintenance simple and low cost. Every circuit board is potted to completely eliminate corrosion to the electronic components and copper tracing on the circuit board. An explosion-proof aluminum enclosure houses the transmitter.

## Ordering Information

The **GG-H2S-EXP** is delivered calibrated and ready to install. The assembly includes sensor and potted transmitter mounted inside an explosion-proof enclosure. Use the model numbers below to order.

**Order #:** [GG-H2S-50-EXP](#)  
[GG-H2S-RC-EXP](#) (replacement sensor)



## SPECIFICATIONS

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

### Input Power:

+24 VDC, 50 mA

### Detection Principle:

Electrochemical

### Detection Method:

Diffusion

### Gases:

Hydrogen Sulfide (H2S)

### Ranges:

0-50 ppm

### 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 30 seconds

T90 = less than 120 seconds

### Accuracy:

+/- 5% of full-scale

### Zero Drift:

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

### Span Drift:

Less than 3% per month

### Temperature Range:

-4°F to +122°F (-20°C to +50°C)

### Humidity Range:

5% 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)

26-12 AWG, torque 4 lbs-in

### Weight:

3.75 lbs

### Dimensions:

6.75" high x 5.25" wide x 4.5" deep

### Enclosure:

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

NEC/CEC:

Class I, Division 1 & 2, Groups B, C, D

Class II, Division 1, Groups E, F, G

Class II, Division 2, Groups F, G

Class III

NEMA/EEMAC: 3, 4, 4X, 7BCD, 9EFG

UL Standard: 1203

CSA Standard: C22.2 No. 30

FM Classification No.: 3615

ATEX Certificate KEMA 02 ATEX 2265U

IEC Standards EN:60079-0, EN:60079-1, EN:60529

### Warranty:

2 years (including sensor element)