

GG-SO₂

SULFUR DIOXIDE SENSOR



Key Features

- Sulfur Dioxide specific electrochemical sensor technology
- Electronics completely potted to prevent corrosion in harsh environments
- Industry standard linear 4-20 mA output
- Corrosion, weather, and chemical resistant polycarbonate sensor enclosure
- Intelligent-design enclosure temperature control for improved cell life
- Sensor designed to adapt to any harsh environment from -40°F to +122°F
- Real-time continuous monitoring for early detection of toxic concentrations
- Accurately provide TWA, STEL andIDLH alarms for personnel protection
- Detection range of 0-20 ppm SO₂

Toxic Sulfur Dioxide detection for industrial applications.

The GG-SO2 utilizes proven electrochemical sensor technology for fast and accurate detection. The standard detection range of the GG-SO2 provides real-time continuous monitoring of concentrations accurately down to 1 ppm, with no false alarms.

The intelligent internal temperature control of the GG-SO2 provides optimum temperature control for extended cell life. The high-quality injection-molded polycarbonate enclosure offers excellent chemical corrosion protection and high impact resistance.

The GG-SO2 provides an industry standard linear 4-20 mA output signal compatible with most gas detection systems and PLCs. The output signal is not affected by drastic temperature variations or other atmospheric conditions.

Applications

- Wineries
- Wastewater
- Refrigeration systems
- Perimeter Monitoring
- Heat Treatment
- Air quality
- Refineries
- Process manufacturing
- Textiles

Benefits

- Low cost
- Simple operation
- Rugged and reliable

The standard **GG-SO2** sensor is designed to work anywhere, and at a lower base-model price than most competing models. With only one electrochemical sensor for any application; designing, ordering, and maintaining your sulfur dioxide detection system is simple.

The **GG-SO2** is prepared to survive in just about any harsh industrial condition, including acid washdown of processing areas. Every circuit board is sealed forever in potting compound, protecting electronic components and copper tracing from corrosion. A specially vented chemical-resistant polycarbonate enclosure protects the sensor from accidental damage, weather, and direct hose-hits from clean-up crews.

Rule of thumb for personnel protection: mount sensor no higher than breathing zone (5ft off of floor) since SO2 is heavier than air and tends to sink to low-lying areas in poorly ventilated areas. One sensor covers approximately 4000 square feet.

Ordering Information

The **GG-SO2** is delivered calibrated and ready to install. Use the model numbers below to order.

Order #: [GG-SO2-20](#)

[GG-SO2-20-ST](#) (stainless enclosure)

[GG-SO2-20-DM](#) (duct mount)

[GG-SO2-RC](#) (replacement cell)



Stainless steel enclosure option



Circuit board and components potted to completely prevent corrosion

Intelligent heater for temperature and moisture control

Internal splash guard re-directs water from high-pressure hose-hits

Washdown-duty polycarbonate or stainless steel enclosure options

SPECIFICATIONS

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

Input Power:
+24 VDC, 350 mA

Detection Principle:
Electrochemical

Detection Method:
Diffusion

Gases:
Sulfur Dioxide (SO2)

Ranges:
0-20 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 90 seconds

Accuracy:
+/- 5% of value, 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:
Application dependent, but generally less than 3% per month

Temperature Range:
-40°F to +122°F (-40°C to +50°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 3RX Injection-molded, washdown-duty polycarbonate sensor housing with hinged lid and captive screw. For non-classified areas. Optional 316 18 GA, NEMA 3RX washdown-duty stainless steel housing with hinged lid and captive screw. For non-classified areas.

Dimensions:
7.5" high x 6.5" wide x 3.75" deep

Weight:
2.15 lbs

Certification:
SGS listed to UL 61010-1, and CSA C22.2 No. 61010-1-12

Warranty:
2-years (including sensor element)

