

# GASGUARD NO<sub>2</sub>-B

## NITROGEN DIOXIDE SENSOR



### Key Features

- Nitrogen 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 -20°F to +120°F
- Real-time continuous monitoring for early detection of toxic concentrations
- Accurately monitor OSHA's PEL, STEL, and IDLH setpoints
- Detection range of 0-10 ppm NO<sub>2</sub>

## Long-life toxic Nitrogen Dioxide monitoring useful for ventilation control

The GasGuard NO<sub>2</sub>-B utilizes proven electrochemical sensor technology for fast and accurate detection. The standard detection range of the GasGuard NO<sub>2</sub>-B provides real-time continuous monitoring of concentrations accurately down to 1 ppm, with no false alarms.

The intelligent internal temperature control of the GasGuard NO<sub>2</sub>-B 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 GasGuard NO<sub>2</sub>-B 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

- Truck docks
- Loading bays
- Tunnels
- Maintenance garages
- Diesel Engine Test Benches
- Air Monitoring

### Benefits

- Low cost
- Simple operation
- Rugged and reliable

**CALIBRATION  
TECHNOLOGIES  
INC.**



The standard **GasGuard NO<sub>2</sub>-B** 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 nitrogen dioxide detection system is simple.

### Designed “Food Industry” tough

The **GasGuard NO<sub>2</sub>-B** 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 NO<sub>2</sub> is heavier than air and tends to sink to low-lying areas. One sensor covers approximately 4000 square feet.

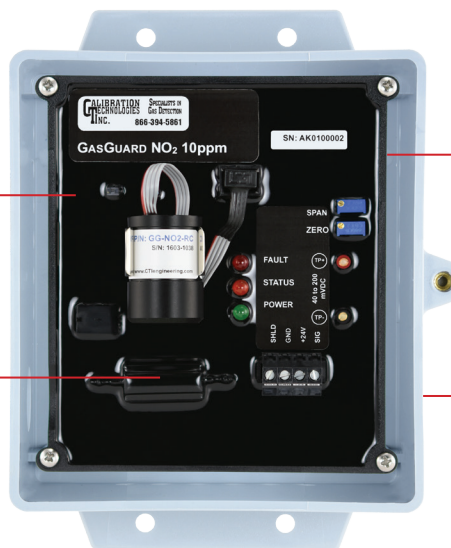
### Ordering Information

The **GasGuard NO<sub>2</sub>-B** is delivered calibrated and ready to install. Use the model numbers below to order.

- Order #:** [GG-NO<sub>2</sub>-B](#) (standard)  
[GG-NO<sub>2</sub>-B-ST](#) (stainless enclosure)  
[GG-NO<sub>2</sub>-B-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:**  
Nitrogen Dioxide (NO<sub>2</sub>)

**Ranges:**  
0-10ppm

**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 60 seconds  
T90 = less than 120 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:**  
-20°F to +120°F (-29°C to +49°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:**  
3 lbs

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

**Warranty:**  
2 years (including replacement cell)

