

GASGUARD O₂

OXYGEN SENSOR



Key Features

- Oxygen specific electrochemical sensor technology
- “Long life” galvanic cell - up to 10 years life at 20.9%
- Industry standard linear 4/20 mA output
- Corrosion, weather and chemical resistant polycarbonate sensor enclosure
- Temperature and moisture control for improved cell life
- Sensor designed to adapt to any harsh environment from +10°F to +125°F
- Accurately monitor oxygen deficiency or enrichment levels for personnel protection
- Real-time continuous monitoring for early leak detection.
- Two ranges available: 15-25% (standard), or 0-25%

Industrial oxygen level monitoring. Designed “food industry tough” with a long-life sensor.

The GasGuard O₂ utilizes a proven galvanic cell type oxygen sensor. With a large capacity electrolyte reservoir for exceptional cell life, the GasGuard O₂ electrochemical cell is designed with excellent chemical durability, and is not affected by interference gases such as carbon dioxide.

Every GasGuard O₂ sensor comes equipped with an internal temperature control designed to perform in the harshest of areas. The controlled environment provides temperature and moisture control for extended cell life. The high-quality injection-molded polycarbonate enclosure offers excellent chemical corrosion protection and high impact resistance.

The GasGuard O₂ 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 such as washdown and defrost cycles, and is minimally affected by barometric pressure changes.

Applications

- Air Quality Monitoring
- Refrigeration Systems
- Confined Space
- Tank Rooms
- Food Processing
- Breweries

Benefits

- Low cost of ownership
- Simple operation
- Rugged and reliable

GASGUARD O₂

Durability and long life

No more hidden “adder” costs for stainless steel or heated boxes. The standard **GasGuard O₂** sensor is designed to work anywhere, and at a lower base-model price than most of our competition. With the rugged extended life cell, the **GasGuard O₂** sensor will give you years of trouble-free operation resulting in an extremely low cost of ownership. We typically recommend a 19.5% alarm setpoint for oxygen deficiency monitoring for personnel protection. 23.5% is usually desirable for oxygen enrichment situations.

Designed “Food Industry” tough

From hot mechanical rooms, to acid washdowns of processing areas, the **GasGuard O₂** is prepared to survive in just about any harsh industrial condition. 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 even direct hose-hits from clean-up crews. A stainless steel enclosure is also available for applications that require it.

Ordering Information

The **GasGuard O₂** is delivered calibrated and ready to install. Use the model numbers below to specify your factory calibrated range.

Polycarbonate

GG-O2-15/25 (standard)

GG-O2-0/25

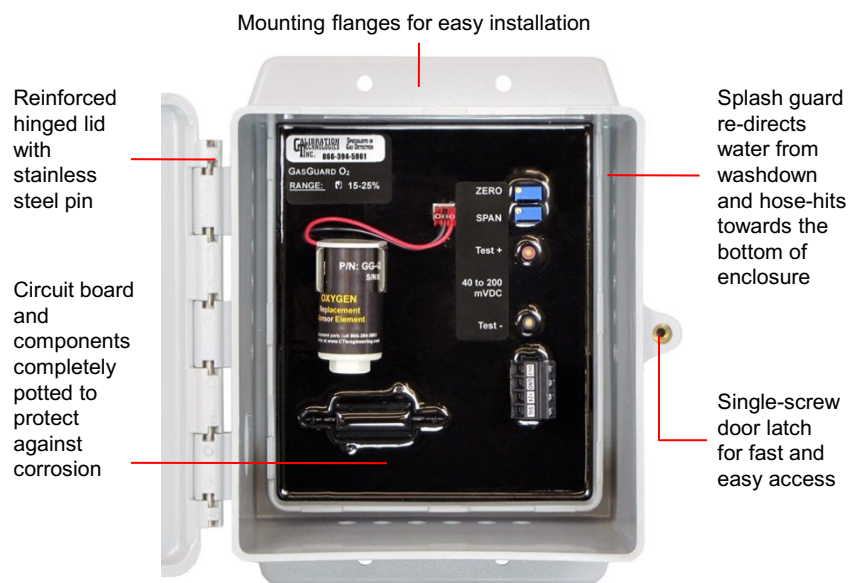
GG-O2-RC (replacement cell)

Stainless Steel

GG-O2-15/25-ST

NEW

Stainless steel enclosure option



SPECIFICATIONS

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

DETECTION PRINCIPLE:

Galvanic Electrochemical

DETECTION METHOD:

Diffusion

GASES:

Oxygen (O₂)

RANGES:

0/15% Vol (standard)

0/25% Vol

OUTPUT SIGNAL:

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

POWER SUPPLY:

+24 VDC, 250 mA

PRESSURE LIMITS:

0.5 to 1.5 Atmosphere. Output signal is directly proportionate to ambient pressure changes

RESPONSE TIME:

T₅₀ = less than 30 seconds

T₉₀ = less than 60 seconds

ACCURACY:

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

ZERO DRIFT:

Less than 0.5% of full-scale per month, non-cumulative

SPAN DRIFT:

Less than 0.5% of full-scale per month, non-cumulative

LINEARITY:

+/- 0.5% of full-scale

REPEATABILITY:

+/- 1% of full-scale

WIRING CONNECTIONS:

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

ENCLOSURE:

Injection-molded NEMA 4X polycarbonate housing. Hinged lid. For non-classified areas.

TEMPERATURE RANGE:

+10°F to +125°F (-12°C to +52°C)

HUMIDITY RANGE:

5% to 100% condensing

DIMENSIONS:

7.7" high x 6.7" wide x 3.8" deep

WEIGHT:

3.0 lb