

The Case for Precision: Why Accurate Oxygen Measurement Matters

*LEARN WHY PRECISION MATTERS FOR LABS,
INDUSTRIAL SITES, AEROSPACE APPLICATIONS
AND MORE.*

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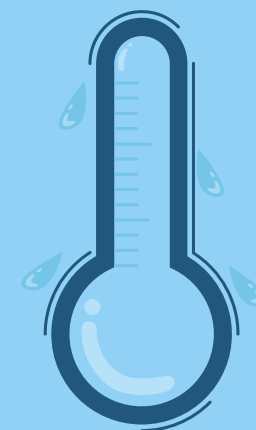
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Why Accurate Oxygen Measurement Matters in Changing Work Environments

In research labs, industrial sites, and aerospace environments, monitoring oxygen levels is critical –not just for efficiency, but for safety.

- Whether you're ensuring breathable air, preventing dangerous oxygen surpluses, or navigating environments with fluctuating conditions, the way oxygen is measured can make all the difference. Oxigraf's sensors provide accurate, real-time oxygen concentration readings, compensating for fluctuating conditions without relying solely on partial pressure.



The Challenges of Fluctuating Environments

Oxygen measurement becomes complex in spaces where conditions like temperature, humidity, or gas composition are constantly changing. Here's a few examples and why:

1. Research Labs and Data Centers

Oxygen levels need to be monitored for worker safety, especially in areas where:

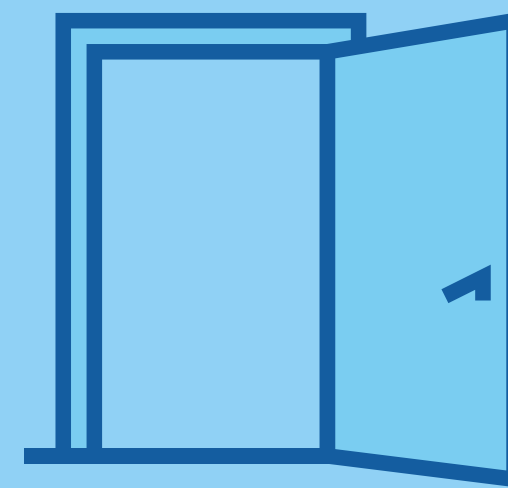
- Other gases (like nitrogen or CO₂) displace oxygen.
- Doors open and close frequently, causing rapid environmental changes.
- Temperature and humidity fluctuate unpredictably.

Why Oxygen Levels Might Change:

- Poor ventilation can lead to oxygen buildup.
- Leaks in oxygen supply systems can cause unintended spikes in oxygen levels.
- Oxygen-enriched atmospheres for processes may spread into unintended areas.

The Risk:

Depending on the Oxygen Monitor, concentration might read a steady 21%, partial pressure could drop or rise significantly. Oxigraf's concentration-based sensors account for fluctuating temperatures, humidity, and gas displacement, ensuring reliable oxygen measurements



2. Industrial Environments

Factories and industrial sites face even harsher conditions, often subjected to:

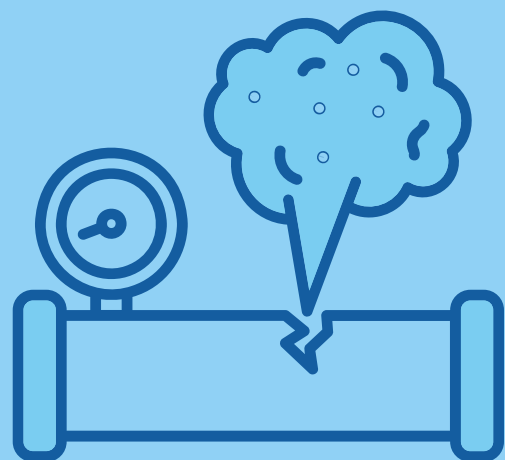
- Variable temperatures and humidity.
- Drafts or gas leaks disrupting oxygen balance.

Why Oxygen Levels Might Change:

- Equipment leaks or improperly maintained oxygen systems can cause localized surpluses.
- Oxygen-enriched zones used for manufacturing (e.g., welding or steel production) may spread beyond intended boundaries.

The Risk:

Low Partial Pressure of Oxygen (pO₂) can reduce combustion efficiency, cutting into productivity and increasing waste. Oxigraf's sensors accurately monitor oxygen concentration, ensuring combustion processes are efficient and safe.



3. Aerospace Applications

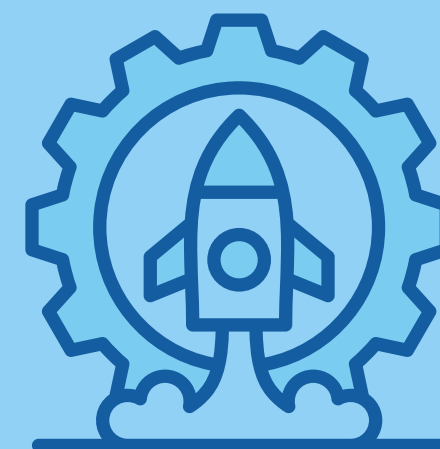
For aerospace organizations like NASA and SpaceX. In sealed or pressurized habitats, accurate oxygen concentration measurement is critical. Oxigraf's sensors provide reliable readings, adapting to environmental changes to ensure crew safety and equipment integrity

Why Oxygen Levels Might Increase:

- Malfunctioning oxygen systems designed to enrich the atmosphere can lead to elevated levels.
- Poorly distributed oxygen systems can create localized surpluses, raising fire risks.

The Risk:

Excess oxygen in a confined environment increases the likelihood of dangerous oxidation reactions, compromising both crew safety and equipment integrity.



How Oxigraf Solves These Challenges

Oxigraf's sensors provide precise, reliable oxygen concentration readings, ensuring accurate measurement even in the most challenging environments. Here's why they're the right choice for your industry:

In Research Labs:

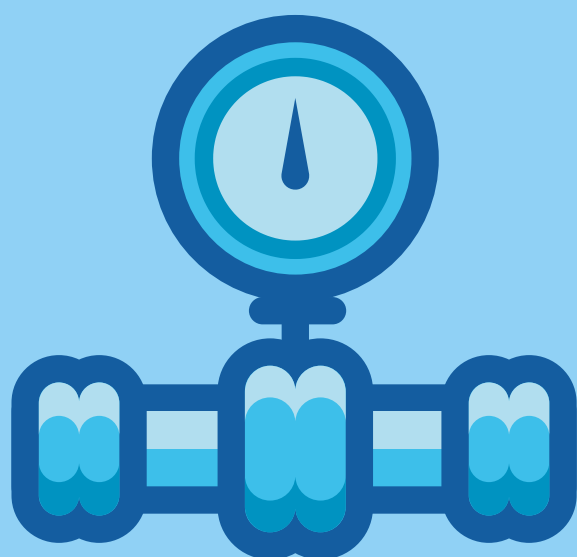
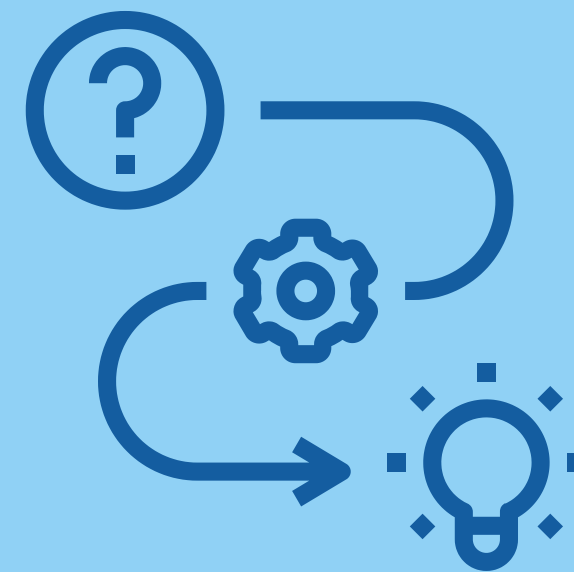
- Oxigraf sensors adapt to environmental changes, accounting for humidity, temperature, and gas displacement. This ensures safe oxygen levels for workers and eliminates risks associated with both oxygen shortages and surpluses.

In Industrial Environments:

- Reliable, real-time measurements prevent inefficiencies in combustion processes and reduce fire hazards caused by oxygen surpluses preserving valuable assets while keeping workers safe.

In Aerospace Applications:

- Oxigraf's precision keeps crew members safe and protects sensitive equipment by accurately monitoring oxygen levels in sealed or pressurized environments.



Accurate Oxygen Measurement for Real-World Conditions

Oxigraf's sensors ensure precise oxygen concentration readings, dynamically correcting for changes in temperature, humidity, and pressure. This provides reliable, actionable data even in fluctuating environments.

The Key Difference:

Traditional concentration sensors may give misleading results when conditions change. Oxigraf eliminates this issue by adapting in real-time, delivering the accuracy needed for safety-critical applications.

The Case for Precision: Why Accurate Oxygen Measurement Matters

In any application, it's not about choosing between partial pressure and concentration—it's about ensuring accurate oxygen measurement. Oxigraf sensors provide precise concentration readings, corrected for environmental factors, delivering reliable and actionable data in real time.

“Precision Oxygen Monitoring”

Preventing risks from depletion, explosion, or corrosion in all environments, including those that fluctuate.

Take Control of Your Oxygen Monitoring

Accurate oxygen measurement saves lives, improves efficiency, and ensures safety in critical environments. Don't rely on outdated or misleading methods—consider Oxigraf for precision that adapts to the real world.

Ready to learn more? Visit www.oxigraf.com and/or follow us at @Oxigraf today on LinkedIn and X.

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