G3500i Inert Gas Oxygen Analyzer

Zirconia Oxygen Content Analyzer

Accurate Response to Oxygen

Perfecting Sensible Technology

Monitor the content of oxygen in inert gas and satisfy vetting inspectors. The G3500i is one of the first oxygen analyzers for inert gas to be certified under the EU Marine Equipment Directive. It has long convinced manufacturers of inert gas systems, fleet managers, and service experts all over the world.

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GREEN INSTRUMENTS

Cost-Effective Redundancy with Double Board

The G3500i Inert Gas Oxygen Analyzer double board

The G3500i Inert Gas Oxygen Analyzer provides accurate, real-time data for monitoring inert gas and controlling its production. The system is based on a new type of zirconia cell, which is adapted to the harsh and stressful marine environment. Zirconia sensors have long been established as industrial standard due to their cost-effectiveness and reliability.

The heart of the system is Green Instruments' microprocessor-based analyzer with a simple menu structure to ensure quick set-up procedures. The system is type approved by Bureau Veritas under the MED.

The G3500i Inert Gas Oxygen Analyzer is designed for durability and low maintenance. The simple and self-explanatory design makes it easy to check the functionality of the system. Even if the zirconia cell needs to be replaced, this can be done in less than five minutes. The G3500i Inert Gas Oxygen Analyzer also offers a simplified calibration procedure, which only requires instrument air in order to save zero test gas from the bottle.

Both flue gas based and nitrogen based inert gas can be monitored with the G3500i Inert Gas Oxygen Analyzer.

Key Features

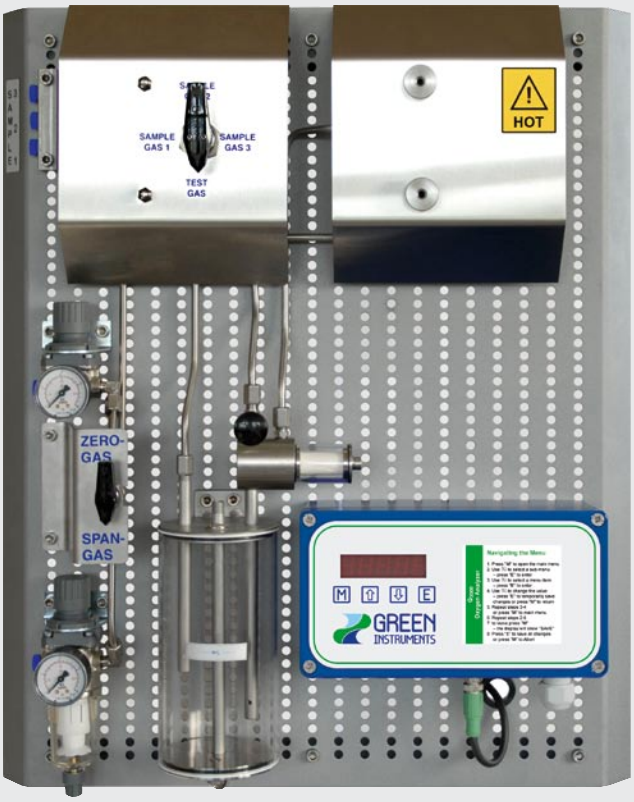
- **Certified under the M.E.D. by Bureau Veritas**
- **Proven functionality for vetting inspectors**
- **Avoid delays**
- **Protect cargo, ship & crew**

- **Easy to install, easy to maintain, easy to use**
- **In-situ calibration**
- **Option for simplified calibration**
- **Configurable measuring range**
- **Configurable signal output**
- **Configurable alarms**
- **Long time sensor stability**
- **Inexpensive spare parts**
- **Easy sensor replacement**

- **Worldwide customer support via service partners**

Highest Quality at Lowest Maintenance

Easy replacement of the zirconia cell



Compact stand-alone single board analyzer

The G$_{3500i}$ Inert Gas Oxygen Analyzer can be adapted to the needs of each vessel. The analyzer provides the right platform for stand-alone operation. But the output of the analyzer can also be used as active input for other systems. Both the monitoring range and the signal output range are fully scalable according to your needs and the external requirements.

The G$_{3500i}$ Inert Gas Oxygen Analyzer can be configured as a single board with one sensor and one analyzer. This compact single board fulfills all requirements and tasks at minimum cost.

The G$_{3500i}$ Double Board Inert Gas Oxygen Analyzer with two sensors and two analyzers, on the other hand, offers redundancy for uninterrupted operation. If sensor or analyzer one fails, just switch to sensor and analyzer two within seconds. You can then at convenience after discharging and loading replace the sensor or check the analyzer without costly interruptions. There is no need for expensive service personnel or a replacement of the complete unit. Ship owners who had bad experience with unreliable inert gas analyzers are highly satisfied with our G$_{3500i}$ Inert Gas Oxygen Analyzer double board.

Specifications

Sampling and Sensor System:

Sensor Technology	Heated Zirconia Type Sensor
Measurement range	0.2 to 21%
Sample quality	Pressure: 0.05 to 1 bar — Flow: 2 to 8 l/min — Temperature: 0°C to 70°C
Sample manifold	3 ports - 1/8" BSP connection
Zero test gas	e.g. 2% O_2 in N_2 supplied by owner – max 8 bar – Reduction station – 1/8" BSP connection
Span test gas	Instrument air according to ISO 8573-1.3.3.2 – max 8 bar – Reduction station incl. filter – 1/8" BSP connection
Filter retention	95% of 1 µm particles

Analyzer:

Power supply	standard 210–250 V AC – 50/60 Hz – 20 VA max. or optional 105–130 V AC – 50/60 Hz
Consumption	30 VA per analyzer (during calibration 50 VA)
Ambient temperature	0°C to 55°C
Digital display	LED type 5 digits
Output signal	Active 4...20 mA linearized – range selectable – default 0.0...25.0% – Load (max.): 20 mA/200ohm/4 VDC
Alarm relays	3 relays – volt free – max. 250 V AC/8 A – alarm level configurable
Response time	90% of full scale in 10 sec
Reliability	Repeatability: 0.1% of reading – Accuracy: +/- 0.1% O_2
Analyzer casing	Aluminum casing – IP55

Board Dimensions:

Single Board Dimension	H×W×D: 600 × 500 × 140 mm — Weight: ca. 12 kg without water and packaging
Double Board Dimension	H×W×D: 620 × 770 × 140 mm — Weight: ca. 20 kg without water and packaging

Optional Equipment:

Extension Board for additional analyzer	Analyzer as specified above Dimension: H×W×D: 620 × 290 × 130 mm — Weight: ca. 7 kg without packaging
Remote digital display	22...250 VAC/DC with 2 configurable alarm relays — Ambient temp.: –20°C to 60°C – Panel cut-out: 44.5 × 91.5 mm
Other optional equipment	Pre-filter for sample gas — Signal amplifier — Signal amplifier for logarithmic output Visualization, recording, and data logging — Inert gas flow, temperature, and pressure

Specifications subject to changes without notice

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