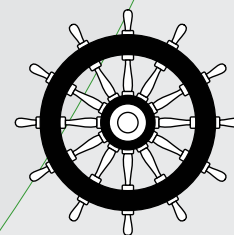


# G36a/p Oxygen Analyzers



Robust and User-friendly

Customizable for many applications



## Perfecting Sensible Technology

Green Instruments has produced oxygen analyzers for marine applications since 2003. The first generation, the G3500 Oxygen Analyzer family, satisfied the requirements of fleet managers, service experts, and manufacturers of inert gas systems all over the world - it conquered the market by storm and now the new G36 family is succeeding and extending the service to customers.

The new G36 analyzers provide extra advantages such as interface via touch screen, galvanically separated and stronger analog signal, new improved sensor, trend graph display, data logging, and optional pressure compensation.

The new generation of oxygen analyzers are approved under the European Marine Directive, becoming the first system to be certified under the new MED heading A 1/3.54 for fixed oxygen analyzers.

Since the end of July 2009, fixed oxygen analyzers have entered under the MED regulations which makes the

MED type approval mandatory on European flagged ships - this includes most of the EU flags plus Norwegian flagged ships.



**The G36a Oxygen Analyzer** is a stand alone box. It is suitable for modular system integration like the G3500, but with the decisive improvements described above.



**The G36p Oxygen Analyzer** is built for panel mounting. This is Green Instruments' first panel mounted analyzer and it will be able to replace a number of old systems that need to be exchanged.

Both analyzers can be delivered as a complete system with different types of sampling boards customized to your specific application.

# Specifications - G36a/p Oxygen Analyzers

	G36p	G36a
		
<b>Certificates &amp; Approvals</b>	MED by DNV – BV, DNV, and Lloyd's Register Type Approval — <b>CE</b>	
<b>Sensor</b>	Heated Zirconia Sensor – both SEN1 plug-in type and SEN9 screw-in type	
<b>Measurement Range</b>	0.0 ... 21.0% O <sub>2</sub>	
<b>Repeatability</b>	+/- 0.1 % of the measurement range	
<b>Accuracy</b>	+/- 0.5 % of the measurement range	
<b>Response Time</b>	90% of F.S. in less than 45 sec.	
<b>Power Supply</b>	24 VDC	100...230 VAC / 50...60 Hz
<b>Output Signal</b>	2 × 4...20 mA – range selectable, default: A-out1: 0.0...25.0 % O <sub>2</sub> / A-out2 not in use	
<b>Max. Load</b>	600 Ω / 24 VDC	
<b>Alarm Relays</b>	4 relays used for different functions, volt free, 24 V AC/DC, 5 A	
<b>Interface</b>	Touch screen 71 x 39 mm with trend graph display	
<b>Ambient Temperature</b>	0°C to +70°C	-15°C to +55°C
<b>Dimensions</b>	Panel cut: 154 × 73 mm (W×H) Front: 178 × 95 mm (W×H) Depth: 71 mm + cables	170 × 200 × 90 mm (H×W×D) Cable glands at bottom
<b>Enclosure</b>	IP55 if panel mounted	IP67
<b>Datalog</b>	History and alarm logs on SD cards	
<b>Pressure Compensation</b>	Optional	

## Applications

		Application Description	Measurement Principle
<b>Oxygen content in inert gas after</b>	Inert Gas Generators (with dedicated burner)	Void spaces in oil tankers, product carriers, chemical tankers, and other storage vessels shall be filled by inert gas with controlled oxygen content for explosion protection. The oxygen content in the inert gas shall be documented. Vetting inspectors and other inspectors are very keen on seeing the oxygen analyzer in function with a certified test gas.	The surplus pressure in the inert gas system is used to supply a sample to the oxygen analyzer. The oxygen analyzer requires a sampling system that controls pressure variations and controls the supply of sample gases and calibration gases.
	Inert Gas Systems (based on boiler flue gas)		
	Nitrogen Generators		
<b>Oxygen content in flue gas after</b>	Boilers	The efficiency of combustion can be optimized when knowing the oxygen content of the flue gas. This can yield significant fuel savings. Furthermore, a controlled combustion process will lead to a cleaner combustion and less maintenance.	In situ and direct monitoring with a stack probe.
	Generators		
	Biomass heating plants		