# Analyzing System for Nitrogen Generators



# Monitoring oxygen concentrations in nitrogen

Green Instruments oxygen analyzers provide user-friendly and robust monitoring in marine environments, ensuring accurate and reliable oxygen measurements. The oxygen analyzers are used to prevent combustible atmospheres. Having an oxygen analyzer on board is crucial for enhancing and maintaining vessel safety.

The oxygen analyzer for nitrogen generators is designed to measure oxygen concentrations in nitrogen. The analyzer is available as a wide model (G3610) or a narrow model (G3611). Both variants are designed for a high gas pressure because of a filter regulator. The G3610 is equipped with a G36a analyzer and the G3611 is equipped with a G36p analyzer. The G36a analyzer is a standalone box, suitable for modular system integration. The G36p analyzer, on the other hand, is designed for panel mounting.

# **Service and support**

The G3610/G3611 analyzing system is simple to install and have a low cost of ownership. Consumable parts are easy to replace by the crew. In the event that assistance is required, for example with the replacement of parts or with retrofitting, Green Instruments provides full service and support to ensure optimal operation throughout the entire product lifetime.

# **Key features**

- Protects cargo, ship, and crew
- Simple installation, operation, and maintenance
- Simple calibration by crew
- Automatic artificial calibration
- Configurable measuring range and signal outputs
- Low cost of ownership
- Graphic display interface via touch screen
- Global service and support







G3610



# Specifications - G3610/3611

# **ANALYZERS**

- G36a: Inclusive fixed analyzer
- G36p: External analyzer

#### **Power supply**

	G36a	G36p
Standard	100 - 230 VAC, 50/60 Hz	24 VDC
Power consumption	40 VA per	analyzer
Ambient temperature	-15 - 55 °C	0 - 70 °C

#### Material/enclosure

Digital display	71 x 39 mm touchscreen with trend graph display	
Enclosure	IP 67	IP 55 if panel mounted
Sensor technology	Zirconia type sensor	

#### Measurement

Measurement range	0 – 21 % O <sub>2</sub>	
Repeatability	± 0.1 % of the measurement range	
Accuracy	± 0.5 % of the measurement range	

#### Communication

Output signal	$2 \times 4$ – 20 mA – range selectable Default: 0 – 25 % O <sub>2</sub>
Max load signal	600 Ω / 24 VDC
Alarm relays	4 relays, volt free, 24 VAC/DC, 5 A for $O_2$ low or high; $O_2$ high-high; systems fail
Response time	90 % of full scale in less than 45 sec.
Datalog	History and alarm logs on SD cards

### **BOARD SPECIFICATIONS**

Sample specification	Min 4 bar – max 10 bar on all inlet ports Preferable constant and identical pressure on all inlet ports
Sample flow	1 – 5 l/min
Sample temperature	0 – 70 °C
Sample manifold	3 ports – 1/8" BSP connection
Selector valve	5-way and 3-position switching valve SS 316
G3610 wide board	600x 500 x 140 mm / weight: approx. 9 kg (without analyzer and packaging)
G3611 narrow board	600 x 300 x 140 mm / weight: approx. 7.5 kg (without analyzer and packaging)

# **OPTIONAL EQUIPMENT**

#### Digital flow switch

0.2 - 10 l/min, 1 analog output 4 - 20 m A and 1 NPN output, display with LED type 3 digits, 1 alarm set point with the NPN output.

#### Optional

Pre-filter for sample gas, signal amplifier for logarithmic output, remote digital display, visualization, recording, and datalogging.

Specifications subject to changes without notice

# **CERTIFICATES**











# **EUROPE**

**Green Instruments A/S** 

Erhvervsparken 29 9700 Brønderslev, Denmark Tel: +45 96 45 45 00

sales@greeninstruments.com

# **AMERICA**

**Green Instruments USA, Inc.** 6750 N. Andrews Avenue Suit 200 Fort Lauderdale, FL-33309, USA Tel: +1 954 613 0400

usa@greeninstruments.com

#### ASIA

Green Instruments (S) Pte. Ltd. 4008 Ang Mo Kio Avenue 10 #01-09/10 Techplace I, Singapore 569625 Tel: +65 3100 0577

sales.sg@greeninstruments.com

