

G3620a/G3620p Stack Gas Oxygen Analyzing System

Boiler Combustion Control

Perfecting Sensible Technology



True Wet Measurement of Excess Oxygen



Control Combustion and Optimize Boiler Efficiency

The G3620 Stack Gas Oxygen Analyzing System provides data to help control the fuel-air ratio in the burner.

The system is installed directly in the stack close to the boiler, which provides real-time, wet oxygen measurements under actual flue gas conditions. This means that the sample is analyzed in situ without being passed through vulnerable sampling lines.

Easy On-stack Installation

The fuel-air ratio is crucial for optimizing combustion and obtaining boiler efficiency. Insufficient oxygen supply leads to poor combustion, which means that unburned fuel escapes and energy is lost. Besides wasting fuel, incomplete combustion also generates more black smoke and soot. Too much excess oxygen absorbs heat, which also means that valuable energy is lost.

Save Fuel and Detect Malfunctions

With the G3620 it is possible to save up to 3-5% of the fuel consumption. Even on smaller boilers, the G3620 achieves a pay-back time of a few months. In addition, controlling

the combustion gives early alarms for detecting boiler malfunctions which keeps the boiler clean avoiding expensive boiler maintenance.

Robust Design for Diverse Applications

The G3620 is very robust and well suited for the harsh marine environment with lots of vibrations and heat, but it has also proven its durability in connection to special industrial applications with unusual combustion conditions.

It is a compact system consisting of an ejector probe with protective housing, a sampling board, and an umbilical cord. The system uses a zirconia cell sensor that is one of the most rugged analyzing techniques, and it has proven its functionality in many different environments.

Low Maintenance - Easy Operation

Automatic simplified calibrations of the G3620 make the system easy to operate. At regular intervals (freely configurable), the analyzer calibrates itself using instrument air. The automatic back-flushings clean the head of the probe from loose soot and dust which assures minimum maintenance and crew disruption.

For Boiler Safety and Fuel Economy



Key Features

- Optimize boiler efficiency
- Keep the boiler clean
- Save fuel
- Get early alarms
- Compact design — Easy to install
- Automatic in situ calibration — Easy to use
- Automatic back-flushing for purging the filter at the probe head — Easy to maintain
- Configurable measuring and output range
- Long time sensor stability
- Worldwide customer support via service partners

Stand Alone or Panel Mounted Analyzers

The simple and self-explanatory design of the G3620 makes it easy to check the functionality of the analyzer. Even if the zirconia cell needs to be replaced, this is done within minutes.

The G3620 is delivered with the G36a or the G36p Oxygen Analyzers. The G36a is mounted directly on the board, whereas the G36p is build for panel mounting.

MED Approval

The G36a/p is approved under the European Marine Equipment Directive (MED), becoming the first system to be certified under the new MED heading A 1/3.54 for fixed oxygen analyzers.

Total Solution for your Boiler

The G3620 can be combined with our G5000 Boiler Monitoring equipment. This offers monitoring of excess oxygen in the exhaust gas in relation to the boiler load.

Do not hesitate to contact us, and we will help you find the best suitable solution for you and your company.



Specifications - G3620 SGOA System

Analyzer	G36a	G36p
Measurement range	0.0...21.0% O ₂	0.0...21.0% O ₂
Ambient temperature	-15°C to +55°C	0°C to +70°C
Power supply	100...230 VAC /50...60 Hz	24 VDC
Power consumption	40 VA per analyzer	40 VA per analyzer
Digital display	Touch screen 71 x 39 mm	Touch screen 71 x 39 mm
Output signals	Active 4...20 mA	Active 4...20 mA
Alarm relays	2 relays, volt free, 24 V AC/DC, 5 A	2 relays, volt free, 24 V AC/DC, 5 A
Response time	90% of full scale in less than 45 sec.	90% of full scale in less than 45 sec.
Repeatability	+/- 0.1% of the measurement range	+/- 0.1% of the measurement range
Enclosure	IP67	IP55 when panel mounted

Sampling Board with Connections

Dimensions / weight	600 × 290 × 130 mm (H×W×D) / approx. 6 kg (without umbilical cord)
Test gas inlet	Max. 2 bar – quick coupling for connection of OD 6 mm hose
Air supply inlet	Max. 10 bar - 1/8" BSP connection
Air quality	Instrument air quality according to ISO8573-1:2010 class 4.4.3 – consumption up to 5 l/min

Ejector Probe

Sensor technology	Zirconia type sensor
Sample temperature	0°C to +500°C
Calibration air flow	Approx. 2 l/min
Ejector air flow at 1 bar	Approx. 2 l/min ≈ Vacuum 80 mm H ₂ O – adjustable if more suction is needed
Dimensions	285 × 180 × 475/600 mm (H×W×D) for stack diameters of 120 to 2800 mm
Weight	Approx. 6 kg (without umbilical cord)
Umbilical cord	3.0 m length in 28 mm nylon conduit

Optional Equipment

Remote display with alarm relays
 Visualization and data logging
 Extension kit for umbilical cord

Specifications subject to changes without notice