

G7200

Multi Gas Monitoring System



Emission monitoring for a sustainable future

Multi Gas Monitoring System - designed for purpose

Measuring environmentally harmful and hazardous emissions such as SO₂, CO₂, CH₄, NO₂, and NO is essential for marine transportation. It has become an urgent necessity due to increasingly stricter regulations, as well as widespread public demand for greener transportation options.

The G7200 Multi Gas Monitoring System addresses these challenges, emerging as a cutting-edge and distinctive system,

meticulously crafted with a clear purpose based on direct feedback and insights from our customers.

The system is designed to endure elevated ambient temperatures and vibrations, guaranteeing its durability and reliability in the rigorous maritime environment.

Its scalability enables effortless adjustment to future fuels, ensuring ongoing monitoring effectiveness, as the industry continues to evolve.

Additionally, the G7200 system excels in sustainability offering cooling without the use of harmful refrigerants and boasting a significantly reduced weight.

The userfriendly HMI structure is designed to ease the setup, operation, and maintenance.

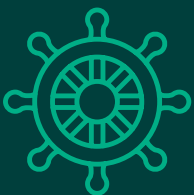
The G7200 Multi Gas Monitoring System is extremely durable and offers easy replacement of consumable parts.

“Green Instruments provides comprehensive service and support to ensure optimal operation throughout the entire lifetime of the product, even in the case of retrofitting to a new system”.



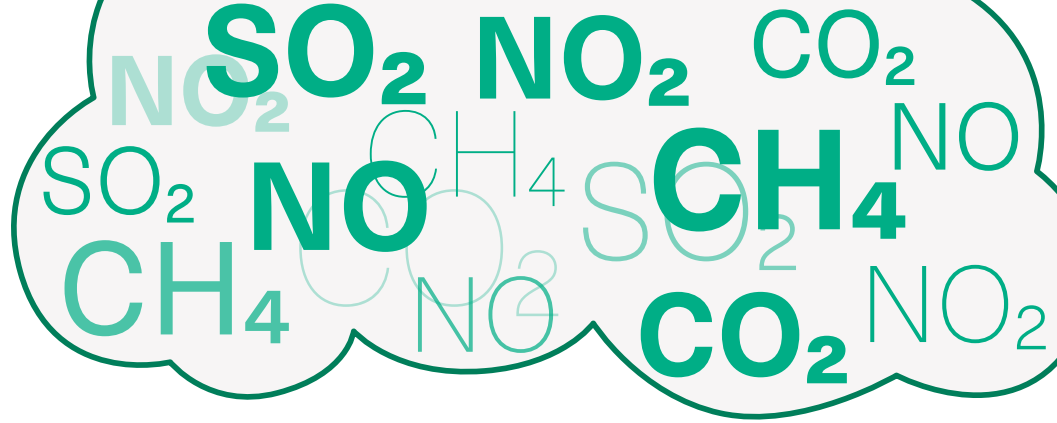
Why use multi gas monitors?

Marine fuel consumption generates harmful emissions, posing risks to the environment and human health. To meet regulations and safeguard both, vessels require advanced gas monitoring systems. With multi-gas monitoring, operators can track harmful emissions in real-time, ensuring compliance, protecting health and the environment, and enhancing stakeholder trust while improving operational efficiency.



How does the multi gas monitoring system work?

The G7200 Multi Gas Monitoring System utilizes non-dispersive infrared and/or ultraviolet measurement technology for reliable and efficient monitoring in various applications. The system includes a sampling board and conditioning unit, enabling simultaneous preparation and measurement of gasses. This allows the system to sample up to four different points, ensuring comprehensive real-time monitoring and a quick response to excessive emissions.



Feature overview of the Multi Gas Monitoring System

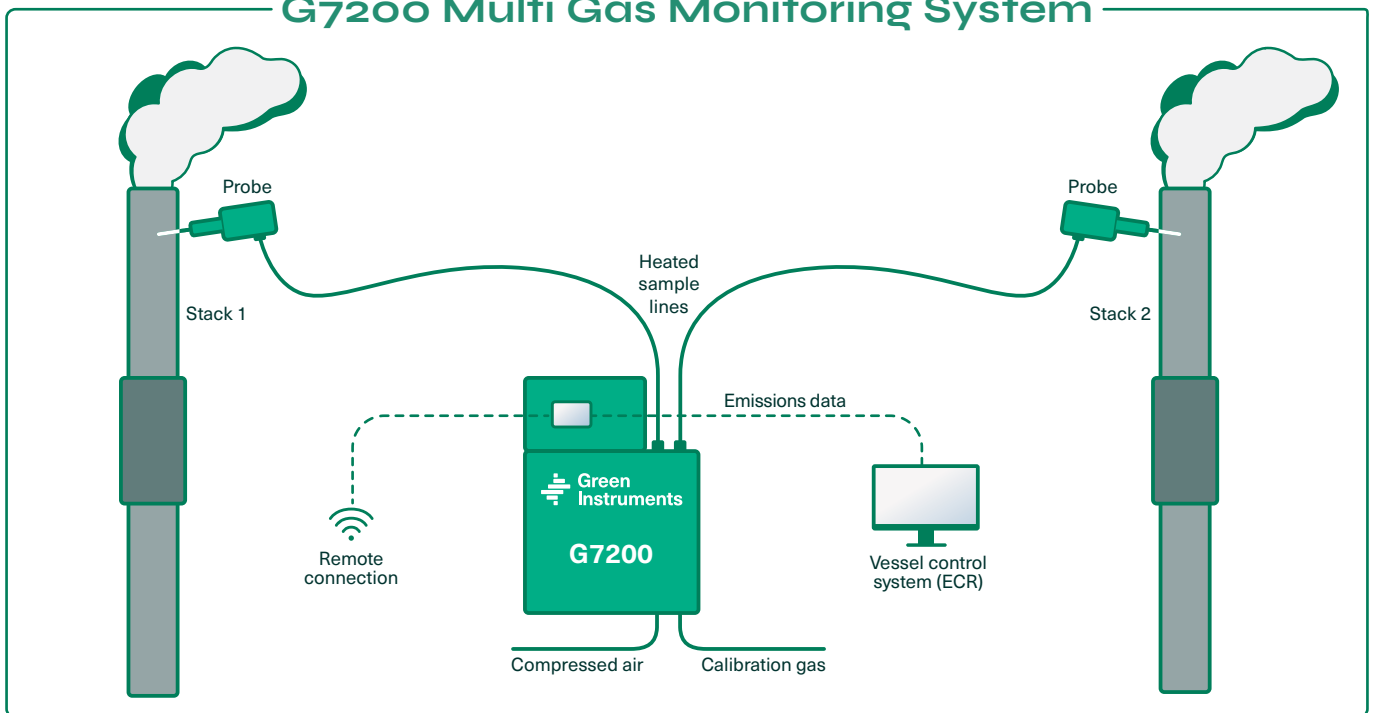
Strategic advantages

- Real-time monitoring and documentation of harmful emissions for emission reporting
- Crafted for the harsh maritime environment
- Low cost of ownership with global service and support
- Cooling without the use of harmful refrigerants
- Optional remote data access
- Improved usability for reduced downtime
- Optimized for tight spaces.
- Adding a multiplexer allows up to four emission sources to be monitored using a single analyzer

Operational advantages

- Durable and robust design for high ambient temperatures
- Fast, accurate and reliable gas detection with well-proven extraction system
- 5-step filtration
- Modular design for customized monitoring profile
- Measures SO₂, CO₂, CH₄, NO₂, and NO levels
- Failsafe zero air system with integrated air treatment unit
- Up to four sampling points with balanced sampling frequency
- Low gas flow for low filter consumption
- Easy replacement of consumable parts by crew or Green Instruments service support
- Digital maintenance plan for optimal performance and service scheduling

G7200 Multi Gas Monitoring System



Specifications – G7200

MONITORING CABINET

Power supply	230V 50/60Hz, 16A - 40A*
Ambient temperature	5 – 55 °C
Material/enclosure	Painted mild steel RAL 7035 / IP 54
Dimensions & Weight	1200 x 800 x 300 mm / Approx. 125 kg*

System Components

7" TFT LCD color touch screen
Single or dual stack sample conditioning
Multi-step filtration system with water trap
Gas pump with automatic flow regulation
Leakage detection and filter monitoring
Temperature control with heating and electric ventilation
Purge air system with air treatment unit
Gas analyzer module, 1-3 depending on configuration

Measurement

Measurement range*	SO ₂ : 0 - 300 ppm
	CO ₂ : 0-20 %
	NO: 0 - 1000 ppm
	NO ₂ : 0 - 300 ppm
	CH ₄ : 0 - 5000 ppm
	Other gases (e.g. N ₂ O and CO) and measuring ranges upon request
Measurement principle*	NDIR & NDUV spectroscopy

Calibration	Zero calibration: Automatic using compressed air
	Span calibration: Manual using connected mixed test gases (depending on analyzer type)
	Possible annual on-site verification and calibration
Sample flow	0,5 l/min

Communication

Interfaces	Modbus TCP/IP Optional modbus RTU converter and IOT module
------------	---

PROBES AND HEATED SAMPLE LINES

Probe tube material	316TI (max. 600 °C) or Hastelloy (max 400 °C)
Flange dimension	DN65 PN6, JIS B2220 5K 65A
Sample line length	4 - 25 m*
Ambient temperature	5 - 55 °C
Dimensions & Weight	175 x 180 x 795 mm / 12 kg

TYPE APPROVALS

Conformities	Guidelines for Exhaust Gas Cleaning Systems, MEPC.340(77) NOx Technical Code 2008, MEPC.177(58)
--------------	--

CERTIFICATES



*depending on system configuration | Specifications subject to changes without notice

Impacting the world – one ship at a time!



Green Instruments is a global company with local presence in Denmark, USA, Singapore, and China
For more information, please visit greeninstruments.com

