

OGS 3.X

Omicron Gas Sampling System
from Autronica Fire and Security

Challenging environments. Bring it on!

The OGS 3 family is our 4th generation gas sampling system, relied on by major operators around the world. Built to withstand the harshest conditions the Omicron Gas Sampling Systems are the ideal solution for gas detection in areas where normal installation of gas sensors is impossible.

Meet the family.

Our OGS 3 family consists of two different gas sampling systems; The OGS 3.11 is the ideal gas sampling system for all typical marine applications. Based on our more than 20 years of experience we have optimized the system to meet the demanding maritime conditions and to become the all-round solution for monitoring the air content in e.g. water ballast tanks, pump rooms or void spaces in the cargo area.

The OGS 3.1 is our top of the range gas sampling system and typically used in the oil and gas offshore industry. The system contains a monitoring cabinet and a detector cabinet, that both can be installed in EX areas. The system's scalability enables us to design the ideal solution for the individual operational challenges on e.g. FPSOs, FLNG or drilling rigs.

Both systems meet the requirement set out by IMO and the different classification societies.



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SPECIFICATIONS

| | |
|--------------------------|-----------------------------|
| Gas sampling points: | max 48 per detector cabinet |
| Purge air supply: | 6 – 8 bar |
| Power supply: | 230 V AC Nom. |
| Alarm clogged tubes: | Yes |
| Serial line comm.: | RS-485/422 (Modbus RTU) |
| Sample/Purge time range: | 25 – 9999 s |

Intuitive and efficient

Within standard operation the OGS system runs a fully automated sampling sequence from the various defined sampling points. The cycle time is minimized by using 2 independent vacuum pumps; one main pump that continuously draws air from all sample points and one smaller pump taking samples from the actual point according to the sample sequence. This ensures fresh samples and a quick response in case gas is detected. The system continuously self verifies all pneumatic components to ensure proper operation at all times. All alarms, gas as well as potential malfunctions, are shown on the standardized Omicron operator panel in plain text, making the operation extremely intuitive and limiting training requirements, especially for combined systems.

Scalability

The wide range of optional features in conjunction with the overall system flexibility allow Omicron Gas Sampling Systems to cover a broad range of applications, ranging from a system with only a few sample points to a tailor made OGS 3.1 system with a centralized monitoring cabinet and several detector cabinets, making it the ideal solution for large and demanding applications.

Both systems – OGS 3.1 and OGS 3.11 – utilize the common Omicron product line platform, so that they can be easily combined with the Omicron fixed gas detection system OGS 2.1 creating an overall cost effective gas detection solution for an entire vessel.

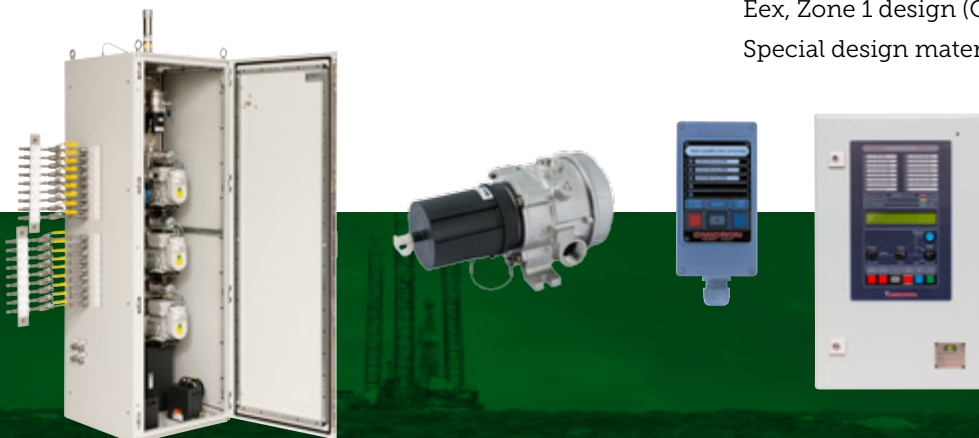
Features

Standard

- Infrared hydrocarbon sensor(s) with range 0 - 100% LEL
- Low and high gas alarms
- Flame arrestor and shut off valves for each sampling tube
- Automatic and sequential purging of each sampling tube
- Two vacuum pumps for reliable detection (main and sample)
- Non-return valves to avoid liquid entering into the system
- Continuous system verification
- Adjustable purge and sample time on every sampling point
- Semi-automatic test functionality for span and zero calibration
- Manual disconnecting of sampling points that are not in use.

Optional

- Multiple gas analysis. Up to 3 different gas sensors simultaneously
- Dilute functionality for detection of non IR detectable combustible gases (e.g. NH₃)
- Repeater display units with control transfer (max. 5)
- Remote alarm units with alarm LEDs and sounder (e.g. for bridge)
- Bulkhead penetrations
- RS 485/422 Modbus RTU serial line communication
- Up to 32 freely configurable aux. relay outputs
- Dual purge supply (i.e. nitrogen and instrument air)
- Standby pump with manual switch over
- Eex, Zone 1 design (OGS 3.1 only)
- Special design materials for extreme gases (OGS 3.1 only)



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