

# Gas Detection

## Automatic gas detection systems for the marine environment

Reliable gas detection systems are of vital importance for the purpose of saving lives and protecting the environment at sea. The Vimex Gas Detection System is a fully furnished system for detection of flammable and toxic gases for the most demanding marine applications.

Being designed to conform with IMO SOLAS Chapter II-2, «Fire Protection, Fire Detection and Fire Extinction», the system is particularly suited for monitoring enclosed rooms such as cargo pump rooms, ballast tanks, air ducts and void spaces.

The Vimex Gas Detection System is highly configurable to meet ship owner requirements, ship types and classification requirements. It can be delivered as an aspiration system with detection sensors integrated into the central alarm cabinet, with fixed sensors on different vessel locations or as a combination of both solutions.

The standard system is equipped with catalytic combustible sensors, or infra-red detectors.

- Detection in Zone 1 or Zone 2
- Custom made system according to current rules and regulations
- Measures all types of toxic gases and oxygen
- Catalytic combustible or IR sensors
- Support 24/7 with service facilities in major ports
- Annual on-board calibration and service available
- Worldwide supply of calibration gases
- Safe and easy operation
- Local and remote monitoring
- Limited maintenance costs
- Simple replacement of modules
- High quality components
- Wall or floor mounted design

### Gas measurements

- Hydrocarbons (HC)
- Hydrogen sulphide (H<sub>2</sub>S)
- Oxygen (O<sub>2</sub>)
- Carbon monoxide (CO)
- Hydrogen (H<sub>2</sub>)
- Refrigerant gases
- Other gases on request

### Sampling system

- 1 to 50 sample points
- Sample cycle < 45 minutes

**VIMEX**  
measurably better



### Alarms

- Low and high level gas alarm
- Low flow alarm

### Communication

- Hard wired
- Serial interface RS-485 / TCP
- Fieldbus

### Power supply

- 110/230 VAC, 50/60 Hz @ 10 A
- 600 VA (max)

### Air supply

- 6 to 8 barg

### Environmental specifications:

- Humidity relative up to 100 %
- Vibration 0.7 g

### Type approval

- DNV GL

The Vimex Gas Detection System consists of an alarm cabinet with a control panel, a number of gas detectors and an optional remote alarm panel.

A typical detection system consists of internal and external gas detectors, sample pump, flow meters, flame arrestors, sample lines and all necessary fittings. The sample points are controlled by solenoid valves.

The system will purge each line before sampling to remove moisture or other contaminants. Purging will also automatically take place if low flow is detected. This will further trigger a flow alarm.

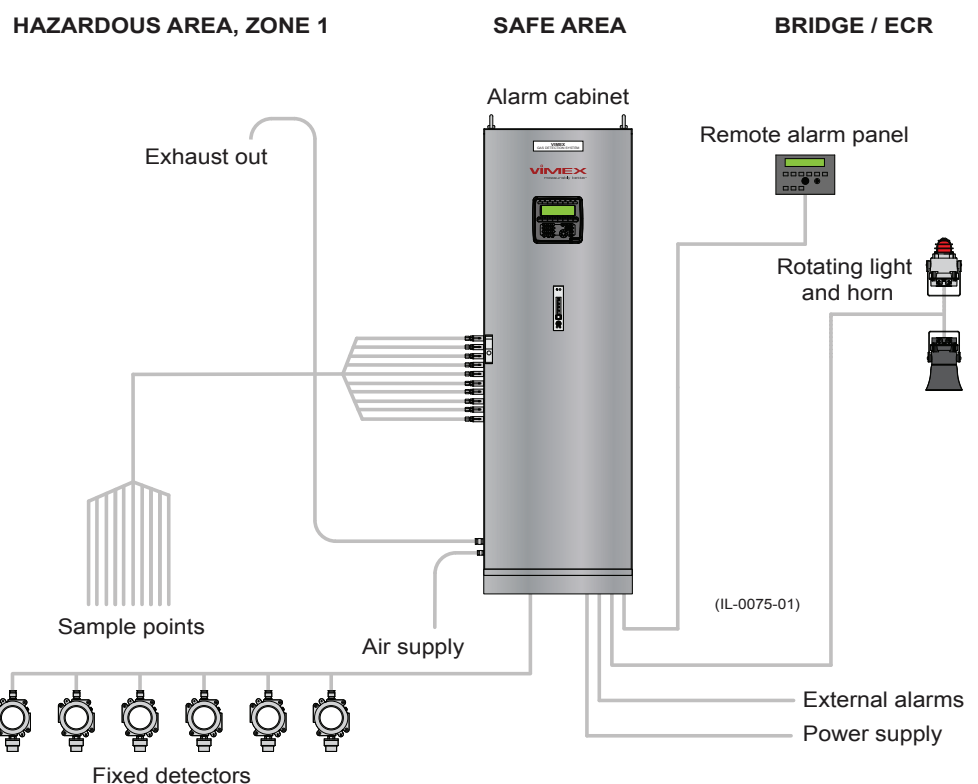
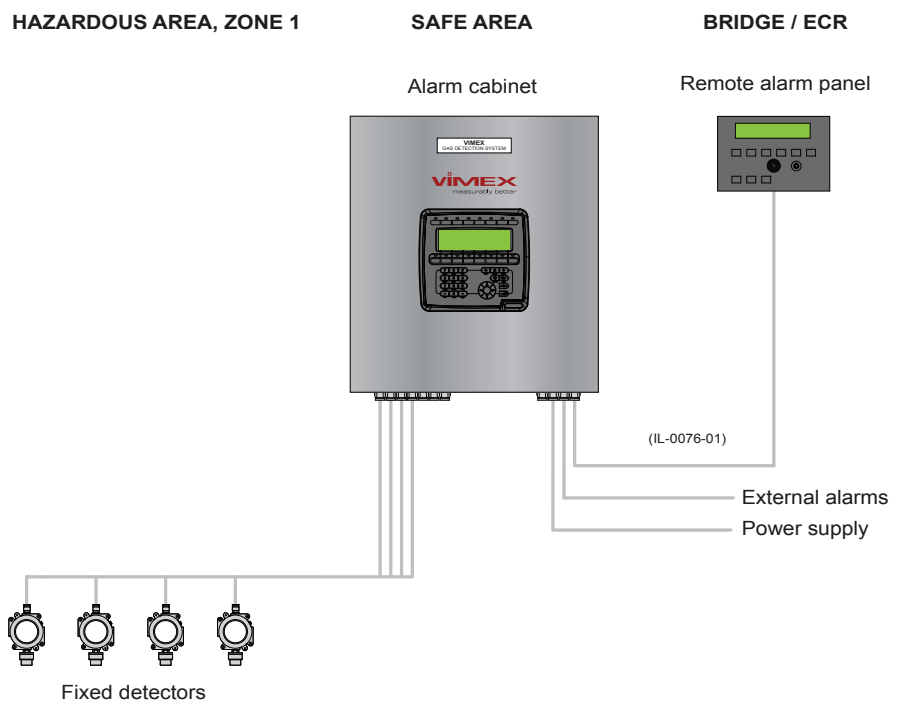
The control panel has self explaining display menus and commands.

The main control panel will normally be installed as a stand-alone unit in the Cargo or Engine Control Room (CCR/ECR) or be mounted in the cabinet front. Remote control panels are optional.

The system is based on a sequential scanning method. This means that all sample points are monitored individually in a repeating cycle. The system is scalable for up to 50 sample points.

Management of system processes, incl. alarm generation and interfacing peripheral units, is provided by an internal fail-safe PLC.

The Vimex Gas Detection System is a stand-alone system, but alarms can also be integrated in principal vessel control systems via fieldbus or hard wired.



Please note that datasheet specifications are subject to change without prior notice!