

## Ballast Tank Combustible Gas Alarm Monitoring System

*In accordance to SOLAS (2000 Amendments) MSC 99(73) : Part B, Reg. 4-5.7.2 Requirements for Double Hull & Double Bottom Space*



### Features

- High Reliability
- Easy to Operate
- Multi-Channels
- Flow fail Alarm
- Easy Installation
- Easy Maintenance
- Ex-Proof by Class NK

### Type / Class Approval

- Class NK
- Lloyd's Register
- Det Norske Veritas (DNV)
- American Bureau of Shipping (ABS)

### General Description

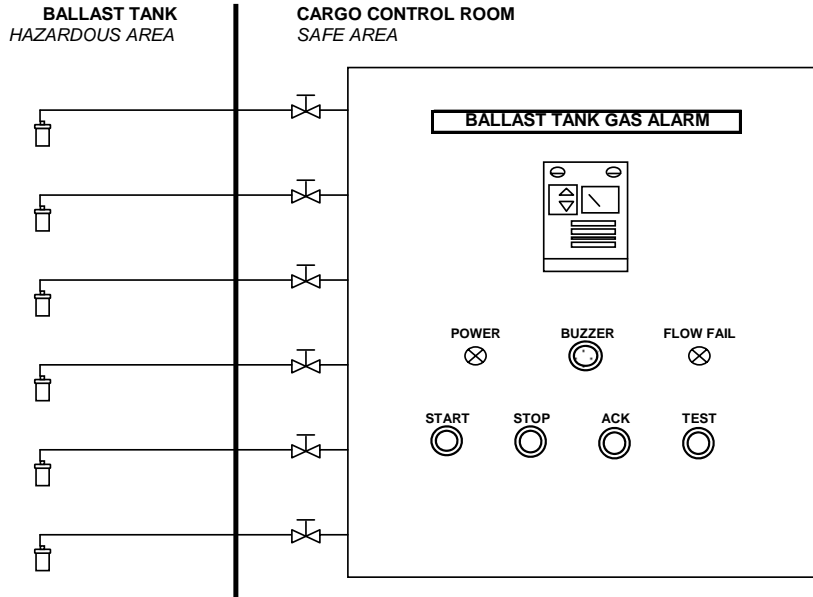
BTGA Series is a multi-detection type gas alarming system design for detecting combustible gas using catalytic combustion principle. Each system consists of the detection, alarm and meter unit tailor-made to customer requirements. When combustible gas levels higher than that set for the alarm (usually 10% of L.E.L – Lower explosion limit) is detected, the lamp and buzzer will be activated.

### Application

BTGA Series is developed for Ballast Tank Combustible Gas Alarm and monitoring purposes. The system is designed to withstand the extreme environmental conditions on a ship's ballast tanks, which meets terminal requirements of all oil major.

Suitable for marine and offshore installers like chemical parcel tankers, chemical / product tankers, oil tankers, FSO, FPSO etc. Land-based system catered for the petrochemical, refinery and process installations are available.

**TECHNICAL SPECIFICATION**



- Model : Monitor panel: BTGA-n  
(n means the number of monitoring points)
- Sampling Method : Suction Pump
- Sensing principle : Catalytic Combustion Method
- Measuring Range : 0 – 100% L.E.L (Lower Explosion Limit)
- Accuracy : Within ±5% L.E.L
- Alarm Display : Red LED (Flicker) and Buzzer
- Alarm Level : Alarm Level: 10% L.E.L (Adjustable)  
Second Alarm (optional)
- Alarm Accuracy : ±25% of Alarm Set Level
- Trouble Display : Sensor Fault Alarm (Red LED continuous on and Buzzer continuous on)
- Alarm Output : Normally close and normally open contact  
(AC125V or DC30V. 1A Max.)
- Other Alarm : Flow Fail Alarm  
(Stop pump, alarm lamp and buzzer on)
- Operating Conditions : -10°C to 50°C under humidity less than 90% RH
- Power Source : AC220V or AC110V
- Power Consumption : 200W Max.
- Safety Approval : Explosion Proof approval by Class NK
- Piping Size : 8mm Dia
- Material in Tank : Stainless Steel SS 316

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