

# Online Single gas detector with control unit

**Single-channel gas leak detection  
system with transmitter and  
controller for any gas**

**for all toxic and  
combustible,  
oxygen gases**



## Online Single gas detector with control unit

VASTHI Field gas Transmitters continuously monitors for dangerous concentrations of gases. The linearize 4-20 mA transmission can interface directly with any receiving instrument starting from indicators, controllers to large control systems. The standard system consists of a compact electronic module housed in a Weatherproof or explosion proof Metallic or Polyester box with an application specific sensor. This state of the art transmitter is carefully designed with and manufactured with Industrial grade Components for reliability accuracy and long life. It is certified for use in hazardous areas Class 1, Division 1, Group B, C & D. (IIA, IIB or IIC) apart from being available in weatherproof Enclosure. Transmitters are equipped with micro controller and are heavily featured with self-diagnostics, Auto calibration (in case of toxic, O<sub>2</sub>, combustible gases only) through embedded Software, can be done at site. RS 232/485 output with baud rates of 2400 bps is available as an option

**Vasthi Multi Gas detection System individually or Combined we can provide gas detectors for the following gases.**

- OXYGEN
- COMBUSTIBLE GASES
- LPG
- HEXANE
- HYDROGEN
- CARBON MONOXIDE
- HYDROGEN SULPHIDE
- CHLORINE
- SULPHUR DIOXIDE
- AMMONIA
- HYDROGENCHLORIDE
- HYDROGEN CYNIDE
- NITRIC OXIDE
- NITROGEN DIOXIDE
- ETHYLENE
- OXIDE
- PHOSPHINE
- PHOSGENE
- OZONE
- AND MANY MORE

## Online Single gas detector with control unit

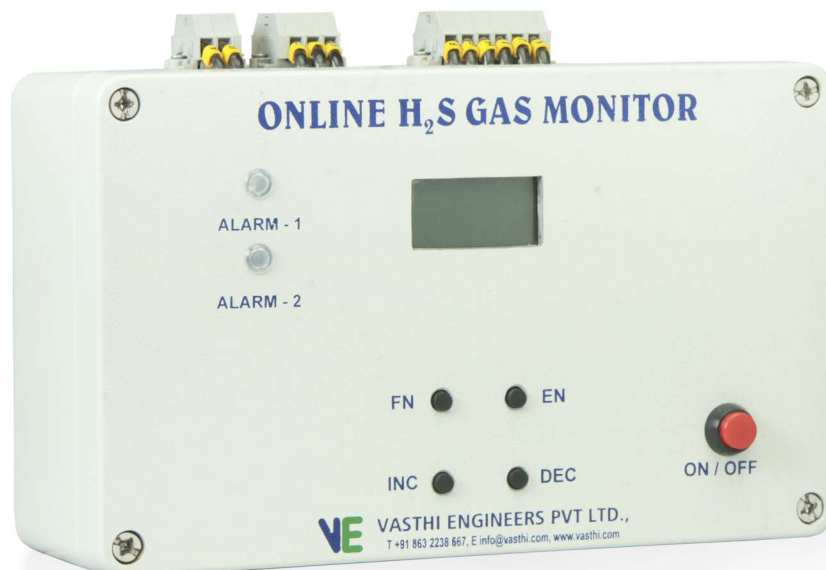
The above mentioned Gas detectors can be used to detect combustible, flammable and toxic gases as well as oxygen depletion. This type of device is used widely in industry and can be found in a variety of locations such as on oil rigs, to monitor manufacture processes and emerging technologies such as photovoltaic.

The rack-mounted SGM-1000 Control Unit provides real-time two-line display of gas leak range, user settable alarms together with analog output and digital communications, conveniently located in a safe area. Intrinsically safe sensors.

### Easy to use with complete functionality

The 19" sub-rack mounting Model SGM-1000. Control Unit is simple to operate. The bright alphanumeric LED display, so the user has flexibility to select the preferred measuring unit. The conversion method is for ideal gases and also specific to natural gas.

The front panel interface enables the user to scroll through the set-up menus to easily configure the analyzer to their own requirements. Four user-adjustable alarm points and two analog 4-20 mA outputs are provided as well as a digital RS485 RTU for connection to external devices.



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### Applications

- Petrochemicals
- Natural Gas
- Utilities SF6 etc.
- Industrial Driers
- Compressed Air
- Pharmaceuticals
- Medical
- Nitrogen gas at the time of filling in the Transformers
- Alternative fuels
- Transportation
- Military
- Aerospace
- Environmental
- Semiconductor
- Ozone Generation
- Heat Treating
- Freeze Drying

### Services by Vasthi: -

- Evaluation
- Custom Designs
- Calibration & Certification
- Repair
- Plant visiting
- Sampling Systems

### Specifications for 2 wire transmitter:-

Detection Principle Application Based  
Response Time < 5 seconds  
Zero drift 0.2% Full Scale  
Accuracy 1% Full Scale  
Operating Voltage 20-30 Volt DC  
Operating Temperature 0-50 C  
Terminations PCB mounted terminal blocks  
Display Inbuilt 0.5" LCD ( Optional)  
Output 4 - 20 mA Linear  
Max. Load Impedance 650 Ohms  
Degree of Protection IP -65 explosions Proof

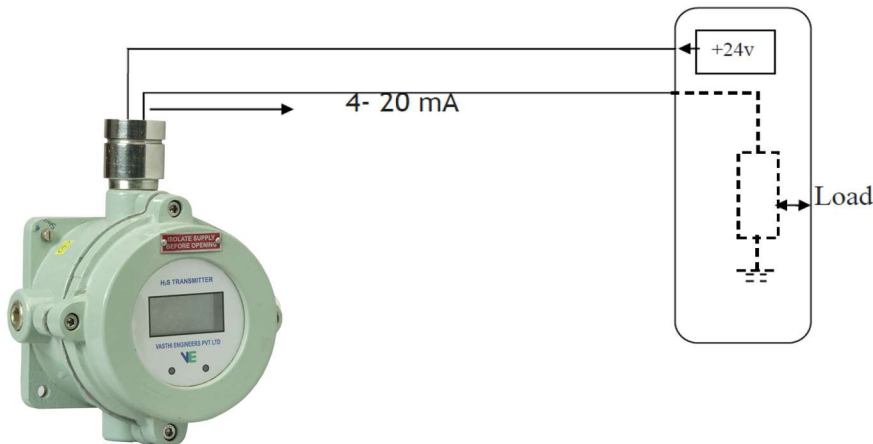
## Online Single gas detector with control unit

### Transmitter Interfacing Drawings:-

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2 wire Transmitter

Customer unit



A Compact Rugged & Intelligent Instrument for...

- AMBIENT MONITORING
- PROCESS OR EMISSION GAS ANALYSIS
- PRE - ENTRY CHECK
- FUEL COMBUSTION OPTIMIZATION
- QUALITY CONTROL

Specifications for 3 wire transmitter:-

Detection Principle Application Based

Response Time < 5 seconds

Zero drift 0.2% Full Scale

Accuracy 1% Full Scale Operating

Voltage 7-30 Volt DC Operating

Temperature 0-50 C Terminations

PCB mounted terminal blocks

Display Warn & Alarm Status LED Indicator

Inbuilt 0.5" LCD (Optional)

Analog Output 4 - 20 mA Linear/ 0-1 V DC

Digital Output Two auxiliary contact for warn & alarm

Contact rating 30 VDC/2A

Communication RS232/RS485 (Optional)

Power Consumption 3.6 W max.

Max. Load impedance 350 - 650 Ohms (7V - 30V)

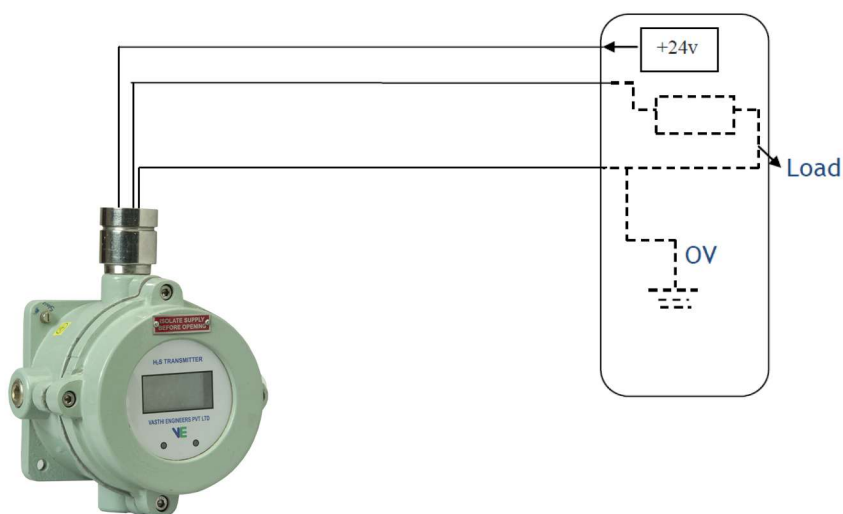
## Online Single gas detector with control unit

Degree of Protection IP -65 explosions Proof

Transmitter Interfacing Drawings:-

3 wire Transmitter

customer unit



### Additional Features (OPTIONAL)

Computer Interface: RS-232

Data Logger: 1 Megabyte, Non-Volatile Memory

### Control unit Specifications

#### Specifications

Sensor Principle: As per the required gas

Display: Digital

Response Time : <10 seconds at 95% variant

Working Temperature: - 5 Deg. C to 60 Deg. C

Storage Temperature: - 20 Deg. C to 60 Deg.C

Warranty: One year