

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

for all toxic and combustible, oxygen gases





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, O2, 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



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 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 setup 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.





#### **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:-

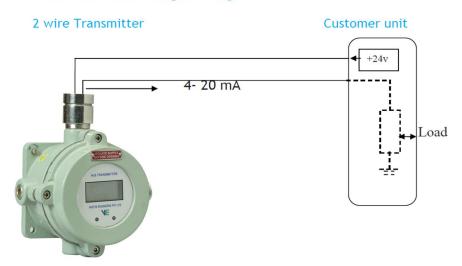
Detection Principle Application Based
Response Time < 5 seconds
Zero drift 0.2% Full Scale
Accuracy 1% Full Scale
Operating Voltage 20-30 Volt DC
Operating Temperature 0-50 C
Terminations PCB mounted terminal blocks
Display Inbuilt 0.5" LCD (Optional)
Output 4 - 20 mA Linear
Max. Load Impedance 650 Ohms

Degree of Protection IP -65 explosions Proof



#### Transmitter Interfacing Drawings:-

Transmitter Interfacing Drawings:-



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)



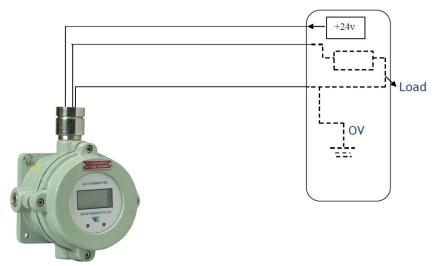
## H<sub>2</sub>S Transmitter

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



### **VASTHI INSTRUMENTS**

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