

# Real-Time Volatile Organic Compound (VOC) Remote Monitoring System

Sample conditioning system for VOC, Toxic, or combustible gases

A custom designed single or multiple sensor system suited to monitor gas & vapor atmospheres from extreme environments containing temperature, humidity, particulate or pressure challenges.

A powerful air aspirator pulls samples from up to 50 meters away which is then filtered and conditioned before being passed across one or multiple detectors. Each detector shares a common calibration and compressed air inlet for aspirated flow. The system is fault tolerant removing the need for expensive downtimes and maintenance.

System integrity is maintained at all times using flow fail monitoring devices which provide dry contacts that activate if the sample line becomes blocked, damaged, removed or interrupted. The panel is compatible with a wide variety of specialized sensor technologies and ranges matched to your specific application requirements.

Transmitters have 4-20 mA analog signal or digital MODBUS output for direct connection to the site DCS, PLC or control system. If needed, a dedicated Gas Detection Control system can be provided along with local alarms and online outputs with a wide range of dry contacts, making the system sophisticated and user friendly.

Integral high capacity sample filters are included to remove liquids, dust and dirt. Optional backup battery is capable of powering the system during power outages.



- Continuous VOC/Toxic/LEL monitoring in hazardous and non-hazardous area locations
- Reduced sensor replacement & maintenance costs due to moisture & contamination control
- Proven design used for sampling from sewers, digesters, drains, confined spaces, tank cleaning, exhaust ducts, etc
- Faster response time with sample flow-through design powered by internal diaphragm pump
- Humidity removal ensures accurate sensor readings even in highly humid environments

*“Protection Through Detection”*

 **CitiSafe**  
Pte Ltd

## Specifications

Gas sensors	One to four gas sensor options Toxic, CH4 HC's, 0-100% IR LEL, CO2, TVOC and O2
Sensor type	Catalytic, Electrochemical, IR, & PID
Maximum sample line length	50 meter (6mm OD. tube)
Operating temperature	5 – 45 C
Power supply	100 – 220 VAC or 24VDC
Sample flow across the detector head	0.3 - 1 LPM
Display	Transmitter local display/Panel indicators
Outputs	Fault alarms, 4-20 mA, MODBUS, dry contact, optional SMS alert
Local alarm	Optional audio/visual local alarm
Cloud based data logging/trend analysis, email alerts, remote viewing	Optional Data Link for secure data transfer, subscription free service
Filtration	In line coalescing filters c/w peristaltic drain pump
Sample conditioning	Humidity, temperature, particulate, pressure & cross interfering gases
Humidity control	Thermoelectric condenser to condition samples up to 95% RH
Sample capture	Optional triggered sample capture for future analysis to assist with due diligence, reports or prosecution
Warranty	1 Year on non-consumable parts
System enclosure	Weatherproof IP rated enclosure for outside locations or as required for site secure installations.

Note – Suggested specifications subject to change without notice.



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