

Gas Sample Conditioning Systems



Sample conditioning system for VOC, Toxic, or Combustible gases

A custom designed single or multiple channel sampling system suited for monitor of gas or vapour atmospheres from extreme environments containing temperature, humidity, particulate or pressure challenges.

A powerful air aspirator pulls samples up to 50 meters in distance 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 supplied by instrument partner to match customer application requirements.

Transmitters have 4-20 mA analog signal or digital MODBUS output for direct connection to the site DCS, PLC or control system. System can provide 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.



- Designed for continuous 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

Specifications

Gas Sensors(supplied by customer)	Combustible, toxic gas or other
Sensor type(supplied by customer)	Catalytic, Electrochemical, IR, or 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 and/or nafion barrier 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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