



Industrial Process & Plant Safety

Hazardous Area Gas Monitoring and Control

EnviroSafe

From ESS Ltd

EnviroSafe Mass Spectrometer systems from ESS detect, track, and monitor leakages and process issues of Hazardous substances in real time, and provide a highly cost effective solution to a multiple analyser approach.

Specifically designed for Hazardous Species gas phase monitoring, these systems offer unparalleled performance in terms of sensitivity, speed, response time and report generation capabilities. Their capability to monitor virtually any hazardous species makes them the system of choice for plant applications, and ensures compliance with any regulations or codes of practice that may be in place.

Housed within a compact, space saving cabinet gives the user flexibility of the location of the system, and a fully ATEX Zone 1 version is available should user wish to locate the system within the Hazardous area itself.

Up to 60 Individual sample points can be monitored with EnviroSafe, often meaning that an entire plant can be monitored with just one system. All sample points are continuously pumped, ensuring that 'fresh' sample arrives at the Mass Spectrometer when that sample stream is selected with no dead volume delay. The measurement time on individual sample points is user selectable, and can be measured in any desired order. With full, automated unattended operation and integration into the plant control system, together with automated report generation, these systems are ideally suited to many Hazardous area monitoring applications, including:

- **Vinyl Chloride / DCM Manufacture and pilot plant**
- **Urea / Ammonia plant**
- **Ambient Solvent monitoring (eg Toluene, Styrene, Benzene, etc.)**
- **Chlorinated compounds**
- **Mercaptans and Amines**
- **Gas scrubber monitoring**
- **Enclosed / confined workplaces**
- **Corrosives**



Real-time monitoring of up to 64 individual sample species with full alarm and control capabilities ensure that the complete process is measured, ensuring that no events are missed. With true on-line monitoring capabilities, EnviroSafe offers a faster, more reliable analysis method than traditional techniques.

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EnviroSafe

A very high sensitivity Quadrupole analyser, equipped with an enhanced gas tight enclosed ion source, EnviroSafe offers a broad dynamic range with detection capability from low ppb levels tight through to high percentage levels. With a response time of just 0.2s, EnviroSafe offers the following features in order to ensure full workplace compliance monitoring:

- **Fast Response - 0.2s response time gives true real time monitoring**
- **User selectable sample times**
- **Full report generation suite, including time weighted averaging (TWA) per sample point, maximum and minimum levels and full statistical analysis. Time and Date stamped reports**
- **Data Storage in individual files for each sample point**
- **Ultra low level detection**
- **Automated report generation and printout**
- **Designed for plant applications**
- **Full alarm integration / klaxon/ SCADA interfacing to ensure worker exposure level (WEL) is not breached**
- **Wireless operation option**
- **LAN Interfacing- instrument can be monitored / operated from plant control room**
- **Up to 64 Sample points (in banks of 10) all continuously pumped**
- **ATEX option**
- **User definable alarm levels for different areas of plant (eg Lower level in enclosed areas)**
- **Automated calibration ensures integrity of results**
- **Ability to activate / deactivate sample points as required (e.g. switch off when areas of plant are not active**

EnviroSafe systems are based upon ESS field proven technology, with its unparalleled reliability record. Coupled with unrivalled application support, these systems represent the very best in workplace exposure monitoring.



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