



Pharmaceutical Applications

Process Optimisation for Pharmaceutical Processes

PharmaSys

From ESS Ltd

The PharmaSys system by ESS have been designed specifically for fast, online monitoring of solvent vapours, other gas species, and additional process parameters in pharmaceutical applications.

These systems offer unparalleled performance in terms of sensitivity, speed, flexibility and ease of use, and feature an optional fully ATEX rated (weatherproof) enclosure for use in hazardous areas, meaning that the instrument can be positioned in the hazardous area itself.

With the capability to monitor multiple components (up to 64) in real time and quantitative results, and a response time of just 0.2s together with automatic calibration routines, PharmaSys gives you direct control of your drying process, increasing efficiency by up to 60% when compared to halting the process to perform manual loss of drying (LOD) tests. Other parameters, such as temperature, can also be read by PharmaSys, enabling drying status to be monitored alongside temperature.

PharmaSys is supplied with 10 sample inlets as standard, allowing for multiple drying stations to be monitored from a single system. There is also the inbuilt flexibility insofar as different sample mixtures can be analysed on different inlet streams, expanding the capabilities to monitor several different process types at once. (Inlets can be expanded in banks of 10)

All sample points are continuously pumped, ensuring that 'fresh' sample arrives at the Mass Spectrometer when that sample stream is selected. 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 suited to many Hazardous area monitoring applications, including:

- **Solvent drying**
- **Freeze Drying**
- **Gas scrubber systems**
- **BTX and VOC applications**

With a high sensitivity, membrane inlet giving a wide dynamic range from low ppb to percent levels, PharmaSys is the system of choice for accurate on line process control of VOC and solvent monitoring applications. The quality of the data means that it can be used in six-sigma modelling in generating process quality improvements.



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PharmaSys

A very high sensitivity Quadrupole analyser, equipped with an enhanced gas tight enclosed ion source, PharmaSys offers a broad dynamic range with detection capability from low ppb levels right through to high percentage levels. With a response time of just 0.2 s, PharmaSys 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 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 solvent process applications**
- **Wireless operation option**
- **LAN Interfacing- instrument can be monitored / operated from outside hazardous area**
- **Up to 64 Sample points (in banks of 10) all continuously pumped**
- **ATEX rated**
- **Automated calibration ensures integrity of results**
- **Ability to activate / deactivate sample points as required (e.g. switch off when areas of process are not active)**

PharmaSys systems are based upon ESS field proven technology, with its unparalleled reliability record.



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