

# EC125 – Multipoint gas analysis system

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- Hospitals
- Underground parking
- Industry
- Research Laboratories
- Biogas

## GENERAL

The system EC125 allows to analyse by means of a multipoint programmable sampling up to 34 collecting points from the environment or from a process.

The metallic enclosure has a transparent door, and includes all the electronic equipments of control and analysis, and the electromechanical system of sampling.

The type of analysis used depends on the specific application: available sensors are electrochemical or catalytic cells, infrared NDIR, PID, etc.

The central unit performs the multipoint scanning by means of electrovalves connected to the specific inlet to check: at scheduled intervals one electrovalve is opened allowing the sample to be analysed by the system.

For some types of sensors (for example electrochemical cells for H<sub>2</sub>S) a purge with ambient air is foreseen after each measure, to avoid the saturation of the sensor and to increase the average life of the cell.

A sampling pump can be added if the process is not in pressure. The analysis time for each inlet can be configured by the user in the central unit.

One or more inlets can be excluded in case for example of maintenance or other reasons.

If the gas concentration level exceeds a determined value (configurable), an output is activated.

The maintenance of the system is minimal but however dependent from the type of gas to analyze and from the sample conditions: where necessary the adoption of a suitable system of filtration is recommended against dust and condensate.

## APPLICATIONS

The system is versatile and can be used in different fields, among which:

- control of Nitrous Oxide in hospitals
- control of the Carbon monoxide in underground parkings
- control of specific toxic and flammable gases in deposits or industrial processes
- control of CO<sub>2</sub> or other pollutants in combustion flue gases
- analysis of biogas
- measure of gas samples in reactors for test researches in specialized laboratories.

## TECHNICAL CHARACTERISTICS

### Enclosure

Metallic with transparent door, protection IP55 (IP54 with forced ventilation if required by the configuration), containing all components of the system.

Standard dimensions:

800x500x1900(h) mm (or smaller, depending however from the application and from the configuration).

### Analysis system

According to the specific application, different types of analysers are used, for details see the applicable specific description.

### Sampling Unit

Microprocessor unit with 5 push buttons, USB port, display with 2 rows.

Visualization in real time of the main parameters of the system.

Access through the interface on the front panel to an easy menu for:

- modification of the parameters of the system (exclusion of a channel, threshold levels of concentration, personalization of the measuring channels, times of scanning, etc.): some functions are protected by an access code to avoid changes not authorized
- visualization in real time of the measures, of the active channel or of the purge phase (if applicable), residual time of the measure or of the purge phase
- analogic 4-20mA linear output for each measured gas

Two levels of instant configurable alarm with output relay and fault alarm.

Scanning with electrovalves, complete with a coalescent filter and peristaltic pump.