



New Instruments and  
Research for Analysis

# SAGITTARIUS SERIES 2000

LEL MONITORING, DETECTION OF FLAMMABLE  
GASES IN EXPLOSIVE ATMOSPHERES

**SAGITTARIUS 2000** is the highest analytical quality solution, as a LEL monitoring system, to check the solvent concentration in evacuation from dryers, ovens and ducts, etc. developed for a wide range of (indoor and outdoor) applications.

## FEATURES AND BENEFITS:

- > **FITS HARSH APPLICATIONS**  
for sample temperature up to 200°C
- > **ABLE TO DETECT ANY CHEMICALS**  
which respond to a flame
- > **FLEXIBLE MOUNTING (model 2201)**  
It can be installed nearby the sampling point of analysis
- > **EXTREMELY LOW MEASURE DRIFTS**  
a calibration check is suggested every 6 months only
- > **FAST RESPONSE TIME**  
( $T_{90} < 2s$ , sampling line excluded)

## SAGITTARIUS 2201



COMPACT FID LEL  
MONITORING SYSTEM

## SAGITTARIUS 2001







## **SAMPLING SYSTEM AND LOOP ANALYTICAL TECHNOLOGY**

Our exclusive sampling system sucks the sample gas by the usage of an ejector (Venturi), completely maintenance free. The sample is constantly monitored in terms of flow and vacuum to warn against any possible anomaly that may invalidate the analysis results (sample loss, filter clogging, ejector air pressure drop, H<sub>2</sub> pressure drop, etc.). After the sampling system, the sample gas is picked up through a loop, put at atmospheric pressure and pushed into the detector; this system guarantees much more stability and less maintenance than the standard continuous flow sampling systems with capillaries.

## **PC EMBEDDED TECHNOLOGY AND WATCH DOG SURVEILLANCE**

The built-in PC card controls the detector, monitors each analyzer working phase and records any possible anomaly that may occur. Every alarm of solvent concentration or of diagnostic opens the digital contacts wired to the plant monitoring. A built-in watch dog system resets the power supply in case of PC freezing or system malfunctions.

## **FID DETECTOR PRECISION AND THE HYDROGEN MANAGEMENT**

The FID detector (Explosion-proof), with conveyed discharge, is developed for unattended industrial usage and guarantees all the analytical capacities of a lab Gas Chromatograph. It's able to detect very low solvent concentrations down to ppb. The flame combustion gas (hydrogen) essential for any kind of FID, is safely managed with a continuous flame monitoring. A leak sensor stops the hydrogen flow in case of any anomaly occurs.

## **REFERENCE NORMATIVE**

- Compliant with EN1539:2015
- Compliant with EN60079-29-1

## **TECHNICAL CHARACTERISTICS**

Detector type	Flame Ionization Detector (Ex-Proof)
Maximum number of the sampling gas lines	from 1 to 4 analytical lines
Range	0÷100 %LEL or g/Nm <sup>3</sup>
Lower detectable level	0.1% f.s.
Stability	<1% f.s.
Accuracy	<1% f.s.
Sample flow speed	2,5 lt/min.
Response time (T90)	2 s/line (sampling line excluded)
High sample gas temperature	Up to 200 °C (2001 HT)
Analogical outputs	4-20mA or 0-10Volt
Communication (Option)	Modbus or Profinet
Power supply	230Vca or 115Vca (option)
Hydrogen requirements	99.995%(4.5grade), 2 bars, 40ml/min.
Compressed air characteristics	Oil and humidity free, at 5 bar, 4m <sup>3</sup> /h.
Working temperature	5 +40 °C
Dimensions and weight (for model 2201)	300x600x400h mm / 35 kg.
Working temperature (rack assembly)	-10 °C +50 °C
Dimensions and weight (for model 2001)	2000x800x800h mm / 220 kg.