



New Instruments and
Research for Analysis

JUPITER SERIES 500

**AUTOMATIC GAS CHROMATOGRAPHIC ANALYZER
for BTX and μ VOCs.**

NIRA Analyzer Mod. **JUPITER 501** is a very sensitive instrument specifically designed to automatically measure traces of organic volatile components in air.

It is an automatic equivalent system for sampling and measuring: benzene, toluene, ethyl-benzene and xylene [Analytic method of reference according to DM on 25/11/1994] or Volatiles Organic Composites.

It was designed to simplify typical monitoring problems, carrying out the task in fixed cabins or mobile units, maintaining the sensitivity and selectivity of typical gas chromatographs in laboratories.

This instrument determines organic volatile composites "enriching" a trap containing absorbent material, then "desorbing" it in a capillary column for detection via FID.

With the new **JUPITER 501**, N.I.R.A. gives coherent and complete results to those who value air quality: urban vehicular traffic pollution monitoring in fixed or on mobile units; industrial or residential area monitoring near industrial plants that may produce aromatic components.

A specific Jupiter model system is suitable to monitor the air quality in clean rooms.



Jupiter 500

BENEFITS

- > **Flame Ionization Detector:** enhanced linearity, reproducibility, reliability and can be used in cabins.
- > **Specific sampling and switching valves:** they can work for years at a high temperature without any maintenance.
- > **Optimized pneumatics:** an automatic electronic pressures and temperatures monitoring system is incorporated in a traditional pneumatic circuit, this allow easier interface and performances optimization.
- > **Sampling using a pump and a selectable mass-flow controller,** all integrated in the system.
- > **Enrichment on trap:** it does not require added cryofocusing systems.
- > **Automatic gas chromatographic separation with long life capillary columns.**
- > **Automatic injection system and thermal desorption.**
- > **Hermetic detectors with channeled vent:** they can be used in any area, even in controlled atmospheres.

■ "PC EMBEDDED" TECHNOLOGY

- Allows the total visibility in every analytical step.
- Increase the quality of chromatograms thanks to an LCD/TFT display and a real time analysis control.
- Increased sampling accuracy and precise chromatogram elaboration.
- Accurate data elaboration: integration, trend recording, and history of all anomalies that may occur.
- Graphic and numeric data re-loading off-line.
- Continuous checking of: operating parameters, analysis and conditioning.
- Trends recordings.
- Auto-diagnostic.

■ TECHNICAL SPECIFICATION

ANALYZED COMPONENTS	<i>Benzene, toluene, ethyl-benzene, xylene</i>
RANGES	<i>0-1000 ppb F.S.</i>
RESPONSE TIME	<i>15 minutes (30-60 minutes = optional)</i>
NOISE	<i>0,1 ppb</i>
MINIMUM DETECTABLE	<i>0,3 ppb</i>
SAMPLING FLOW AND TIME	<i>Selectable</i>
MAXIMUM SAMPLING VOLUME	<i>1000 ml</i>
ACCURACY	<i>1%fs</i>
LINEARITY	<i>1%fs</i>
OPERATIONAL TEMPERATURE	<i>+5; +40°C</i>
ANALOGUE OUTLETS	<i>(0-10)V, (4-20)mA</i>
MAXIMUM NUMBER OF ANALOGUE OUTPUTS	<i>8</i>
SERIAL OUTPUT	<i>RS232</i>
PRINTER OUTPUT	<i>USB</i>
DISPLAY	<i>LCD - 10,4"</i>
KEYBOARD	<i>PC compatible</i>
PROGRAMMABLE SAMPLE INTAKE CAPACITY	<i>50-300 ml/min.</i>
CALIBRATION	<i>Local and remote</i>
HYDROGEN CONSUMPTION	<i>60 ml/min.</i>
AIR CONSUMPTION	<i>300 ml/min.</i>
HYDROGEN CONSUMPTION	<i>2 bar minimum</i>
AIR PRESSURE	<i>4.5 bar minimum</i>
DIMENSIONS	<i>450x270x600mm (L x W x H)</i>
WEIGHT	<i>30 kg</i>
POWER	<i>115/230 Vca, 50/60 Hz, 300W</i>

