

# nCHROM 1000

**GAS CHROMATOGRAPH – ppm and ppb analysis using a DID Detector**



The ISATEC nCHROM 1000 GC uses the industry proven Discharge Ionisation Detector (DID) for the measurement of trace impurities in a various gas streams. This detector will allow measurements from ppm down to ultra-low ppb levels with ease and minimal training required. Using the new interactive touch screen, the nCHROM 1000 GC is straightforward to use and set-up.

The GC design is totally application dependent comprising of a unique number of gas sampling and column switching valves typically linked to two or more column oven modules. Moreover, the packed columns with their independent column ovens and individual temperature controllers also maintain exceptional stability, accuracy and repeatability.

The ISATEC Engineering Team will custom design an analytical solution to meet your application. All systems are designed with volume optimised pipe work using only VCR compression stainless steel fittings and the flow paths are contamination free.

Therefore, this robust system ensures an excellent stability, sensitivity and a long working life.

## KEY FEATURES:

- Discharge Ionisation Detector (DID)
- Electronic Pressure & Flow Management System
- Highly Sensitive to 1 ppb [Application Dependent]
- Accuracy to  $\pm 1\%$  of Scale
- Fast Detector Response: < 0.5 seconds (90%)
- Ideal for trace impurities in numerous applications
- Finely-tuned Detector design
- Cost Effective and Reliable
- Large Colour 6.5" LCD Touch Screen
- Long Term Stability & Sensitivity
- Fully Automated Use
- Electropolished Stainless Steel Tubing
- Integrated Configurable Alarms System
- Packed, Micro-Packed & Capillary Columns for Maximum Sensitivity
- Independent Column Ovens with individual Temperature Control
- Integrated Diagnostics System
- Full Control by TrendVision PLUS Software
- Increased Connectivity with both USB, RS-232 and RS-485
- Drop Down Front Panel for easy access during maintenance and servicing
- Low gas consumption - Economical Platform

## TYPICAL APPLICATIONS:

- ✓ Air Separation Units
- ✓ Food & Beverage
- ✓ Corrosive Gas Analysis
- ✓ Cylinder and Truck Filling Locations

[www.isatec.it](http://www.isatec.it)

## TECHNICAL SPECIFICATIONS

<b>Detector</b>	Discharge Ionisation Detector (DID)
<b>Sensitivity</b>	< 1ppb of CH <sub>4</sub>
<b>Linearity</b>	10 <sup>6</sup>
<b>Accuracy</b>	±1% of scale
<b>Temperature Range</b>	Operating: 30-45°C Ambient: +10°C to +30°C
<b>Range</b>	< 10 ppb to 100% [Application Dependent]
<b>Detector Response Time</b>	< 0.5 seconds (90%)
<b>Warm up Time</b>	1 Hour (Typical)
<b>Power</b>	230 V AC / 50 Hz or 115V AC / 60Hz, 300W
<b>Configurations</b>	19" Rack, Bench Top or Wall Mount
<b>Dimensions</b>	Rack/Bench: 19" (483mm) (W) x 5U (219mm) (H) x 22" (564mm) (D)
<b>Weight</b>	25 kg
<b>Interface</b>	6.5" LCD Colour Display with LED backlight and resistive touch screen
<b>Carrier Gas</b>	Ultra-Pure Helium (He) N6.0: 20-60mL/min
<b>Discharge Gas</b>	Ultra-Pure Helium (He) N6.0: 20-50mL/min
<b>Sample Gas</b>	10 - 500 mL/min flow (200ml/min flow recommended)
<b>Actuator Gas</b>	Clean Dry Air @ 3 Bar (300 KPa) pressure
<b>Electronic Gas Management</b>	5-10 Bar input: Controls Carrier Gas Output from 0-5 bar
<b>Valves</b>	Vici Valco® high purity rotary valves in Helium purged enclosure
<b>Standard Fittings</b>	1/8" Stainless Steel with Swagelok® & VCR fittings
<b>Output Signal</b>	0 - 1 V
<b>Columns</b>	Packed, Micro-Packed and Capillary columns available
<b>Ovens</b>	Independent Column Ovens with individual temperature control (Regeneration in-situ)
<b>Alarms</b>	Detector, System, Flow, Maintenance, Temperature, Pressure
<b>Outputs</b>	TrendVision PLUS provides mA or Profibus/Modbus and RS - 485 connectivity