nCHROM 4000

GAS CHROMATOGRAPH

% and ppm analysis using Thermal Conductivity Detector (TCD)

The ISATEC nCHROM 4000 GC uses an industry proven method of analysis for the quality control of gases: The **Thermal Conductivity Detector (TCD)**. *This detector is ideal for measuring impurities from % to ppm.*
The interactive touch screen uses an easy-to-use user interface for guided functionality and this enables the operator to achieve guaranteed applications with ease.

1/8" Stainless Steel Swagelok fittings are combined with Vici Valco high purity rotary valves to guarantee a contamination free environment that will provide excellent stability, sensitivity and a long working life.

With a quick start up time and fast detector response, operation of the ISATEC nCHROM 4000 is swift, precise and straightforward.
Moreover, the packed columns with their independent column ovens and individual temperature controllers also maintain exceptional stability, accuracy and repeatability. Servicing and maintenance are trouble-free with a drop-down front panel for easy access to the electronic components and our unique column infrastructure, which can regenerate in-situ, providing you with seamless operations. The minimal gas consumption provides an economical platform with a low cost of ownership and long-life span.

KEY FEATURES:

- Thermal Conductivity Detector (TCD)
- Sensitivity to ppm levels
- Accuracy to <5ppm (application dependent)
- Fast Detector Response time of < 1 second (90%)
- Ideal for Permanent Gas Analysis
- Versatile & Robust Detector design
- Universal Detector
- 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 to electronics

TYPICAL APPLICATIONS:

- ✓ **Air Separation Units**
- ✓ **Food and Beverage**
- ✓ **Industrial Gas Production**
- ✓ **Corrosive Gases/Electronic Gases**
- ✓ **Refineries**

TECHNICAL SPECIFICATIONS

Detector	Thermal Conductivity Detector (TCD)
Repeatability	Excellent Repeatability with auto-calibration function
Drift	1 ppm over 48 hours (ppm application)
Linearity	10^4
Sensitivity	< 5 ppm
Accuracy	±0.5% full scale
Temperature Range	Operating: 30-45°C Ambient: +10°C to +30°C
Range	< 5 ppm to 100% (Application Dependent)
Detector Response Time	< 0.5 seconds (90%)
Noise	10 µV maximum, depending on operating parameters
Warm up Time	1 Hour (Typical)
Power	230 V AC / 50 Hz or 115V AC / 60Hz, 300W
Configurations	19" Rack, Bench Top or Wall Mount
Dimensions	Rack/Bench: 19" (483mm) (W) x 5U (219mm) (H) x 22" (564mm) (D)
Weight	25 kg
Interface	6.5" LCD Colour Display with LED backlight and resistive touch screen
Carrier Gas	Helium (He), Argon (Ar), Hydrogen (H_2) or Nitrogen (N_2)
Electronic Gas Management	5-10 Bar input: Controls Carrier Gas Output from 0-5 bar
Sample Gas	10 - 500 ml/min flow (200ml/min flow recommended)
Actuator Gas	Clean Dry Air @ 3 Bar (300 KPa) pressure
Valves	Vici Valco high purity rotary valves
Standard Fittings	1/8" Stainless Steel with Swagelok fittings
Output Signal	4-20 mA (±1 V)
Columns	Packed, Micro-Packed and Capillary columns available
Ovens	Independent Column Ovens with individual temperature control (Regeneration in-situ)
Alarms	Detector, System, Flow, Maintenance, Temperature, Pressure
Outputs	TrendVision PLUS provides mA or Profibus/Modbus and RS - 485 connectivity

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