Series 100 DID Gas Chromatograph

..... Analysis of Impurities to ppb levels .....  

Features:
- Sensitivity to low ppb levels
- Uses Discharge Ionisation Detector (DID)
- Accuracy to ±1% of scale
- Proven reliability & Stability
- Fully Automatic
- Minimum Operator involvement
- Proven Instrument Design
- Guaranteed Application
- Turnkey Solutions
- Specifically Designed to Customers requirement

Applications:
- Impurities in Bulk Gases
e.g. He, H₂, Ar, O₂, N₂, CO₂
- Impurities in Rare/Noble Gases
  Ne, Ar, Kr, Xe
- Impurities in Inert Gases
  N₂O, SF₆, NF₃
- Impurities in Electronic Gases
- Impurities in Halocarbon Gases
e.g. CF₄, C₂F₆, C₃F₈
- Impurities in Corrosive Gases
e.g. HCl, HBr, Cl₂, BF₃, BCl₃

Target Market:
- Air Separation Units
- Industrial Gas Producers
- N5, N6 & N7 Grade Gas Production
- Aerospace and Aviation Industry
- Semiconductor Industry
- Light Source Industry
- Electronic Gases

Discharge Ionisation Detector (DID)

Formerly known as GOW-MAC Instrument Co. (Ireland) Ltd
Our Gas Chromatograph:
The AGC Series 100 DID GC has many different systems each specifically engineered to meet the high specifications required by the customer to measure trace impurities in many applications. Each configuration has unique valve and column selections in order to apply different chromatography techniques from Heart Cut to Backflush to Oxygen Removal. All components are manufactured to the highest standards and are stringently tested to ensure perfection. Our valves are precision made, and are located in Helium purged enclosures to eliminate possible system contamination and produce the utmost in detector sensitivity. Background noise and detector limits are very dependent upon the use of an ultra pure helium carrier gas and the entire instrument being clean and leak-tight.

Our Detector:
The AGC Discharge Ionisation Detector (DID) is unrivalled with superb stability and performance giving low ppb measurements. Based on using a non radioactive, universal and concentration dependent design. The detector generates high energy photons through an electrical discharge in Helium. The metastable Helium then ionises all components except Helium.

Our Solution:
We work closely with each client in order to ensure that all aspects of the application are understood. Then our applications design team will design a solution specifically with the application in mind. All our systems can be designed for corrosive applications and are manufactured with corrosion resistance materials.

Our After Sale Support:
Installation and Commissioning support is essential to providing a total Turnkey solution. Through our dedicated Distribution Network we are able to provide local support and back-up, in both native language and in English. All our Distribution partners have been selected having the technical skills required to provide an excellent support. Ongoing training is provided with specific training focused on Industrial and Specialty Gas applications.

Specifications:

<table>
<thead>
<tr>
<th>Detector</th>
<th>Power Requirements</th>
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<tbody>
<tr>
<td>Name: Discharge Ionisation Detector</td>
<td>110/220/240V , 50/60 Hz, noise and spike free</td>
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<tr>
<td>Linearity: &gt; 10^6</td>
<td></td>
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<tr>
<td>Temp Range: Ambient to 300°C</td>
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<tr>
<td>Sensitivity: &lt; 1ppb of CH₄</td>
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<tr>
<td>Dynamic Range: &lt;5ppb to 1%</td>
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<tr>
<td>Response Time: &lt;0.5 seconds</td>
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Operating Conditions

- Temperature Range: +10°C to 40°C
- Output Signal: 0-1 V output

Gases Required

- Carrier Gas: Ultra Pure He N6.0 ; 20-50ml/min
- Discharge Gas: Ultra Pure He N6.0 ; 20-50ml/min
- Actuator Gas: Clean dry air @ 3 bar

Note: Special Dual Changeover Cylinder System is recommended

Gas Connections

1/16” stainless steel with VCR compression fittings

<table>
<thead>
<tr>
<th>Impurity</th>
<th>H₂</th>
<th>Ar</th>
<th>O₂</th>
<th>N₂</th>
<th>CH₄</th>
<th>CO</th>
<th>CO₂</th>
<th>N₂O</th>
<th>Ne</th>
<th>Kr</th>
<th>Xe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (ppb)</td>
<td>&lt; 15</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;5</td>
<td>&lt;20</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
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How to Order:
Each AGC Series 100 DID GC is manufactured specific to a particular application. Please contact AGC Instruments direct or our local Distributor. We will discuss each aspect of your application to understand your exact requirements. Through this close development we can build and design a configuration for you.

Contact Details:
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