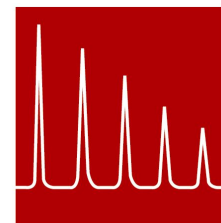


# Series 100 Argon Gas Chromatograph

**AGC**  
INSTRUMENTS

Gas Chromatography since 1965



## ..... Analysis of Impurities in UHP Argon to ppb levels ....

Highly recommended for the quality control of Argon Gas. We can measure Impurities of H<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub>, CH<sub>4</sub>, CO & CO<sub>2</sub> to ppb levels with ease. Easy to use with minimal training required, ensure the Series 100 Argon GC provides a top class service to you at all times.

### Features:

**Sensitivity to low ppb levels**

**High Frequency Argon Discharge Detector (HFADD)**

**Accuracy to  $\pm 1\%$  of scale**

**Long Term Stability & Sensitivity**

**Fully Automatic**

**Minimum Operator involvement**

**Guaranteed Application**



### High Frequency Argon Discharge Detector (HFADD)

### Application:

**Analysis of Impurities in Argon**

H<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub>, CH<sub>4</sub>, CO & CO<sub>2</sub>

### Target Market:

- Air Separation Units
- Industrial Gas Producers
- N5, N6 & N7 Grade Argon Production
- Aerospace & Aviation Industry
- Semiconductor Industry
- Nuclear Industry

### Levels of Detection

|                 |           |
|-----------------|-----------|
| H <sub>2</sub>  | < 15 ppb  |
| O <sub>2</sub>  | < 75 ppb  |
| N <sub>2</sub>  | < 100 ppb |
| CH <sub>4</sub> | < 30 ppb  |
| CO              | < 100 ppb |
| CO <sub>2</sub> | < 100 ppb |

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### Our Gas Chromatograph:

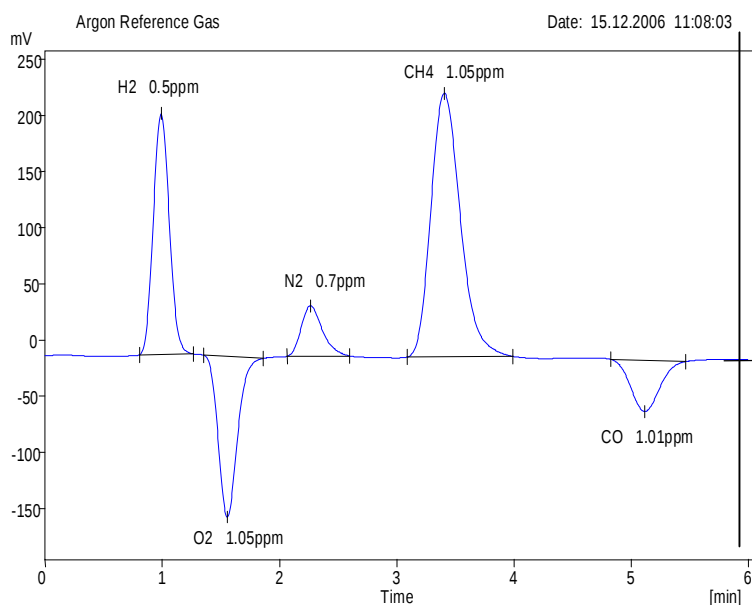
The AGC Series 100 Argon GC is available in two configurations, depending on the impurities being measured. Using only components of the highest quality, enables AGC Instruments to produce a sensitive Gas Chromatograph specific for the Analysis of impurities in an Argon Matrix Gas. All fitting used are 1/8" VCR compression that ensures a perfect seal each time. The valves used are mass spec leak tested and housed in an Argon purged enclosure which provides an atmosphere free from air leaks. Thereby ensuring a contamination free environment that will provide excellent stability, sensitivity and a long working life.

### Our Detector:

The gas passing through the Detector is subjected to a high electromagnetic field, thereby causing the gas to illuminate. The resulting luminance is monitored by a light dependant resistor (LDR). As the sample component elutes from the column the light intensity is altered. The output from the LDR is converted to a mV signal and is measured on the Data Capture System.

### Our After Sale Support:

Installation and Commissioning support is essential to providing a complete service. 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:

#### Detector

Name: High Frequency Argon Discharge Detector (HFADD)  
Linearity:  $> 10^3$   
Temp Range: 30-45°C  
Sensitivity:  $< 100\text{ppb}$  of  $\text{N}_2$   
Typical Range: 0-10ppm  
Response Time:  $< 0.5$  seconds

#### Power Requirements

110/220/240V, 50/60 Hz, noise and spike free

#### Dimensions

W = 19" ; D = 400mm ; H = 8U (360mm)

#### Operating Conditions

Temperature Range: +10°C to 40°C

#### Output Signal

0-1 V output (std) 0-10V (optional)

#### Gases Required

Carrier Gas: Ultra Pure Ar N6.0 ; 35-80ml/min  
Actuator Gas: Clean dry air @ 3 bar

Please ask about our Argon Carrier Gas Purifier Option  
Note: Special Dual Changeover Cylinder System is advised

#### Gas Connections

1/8" stainless steel with VCR compression fittings with 1/16" stainless steel tubing

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