Hiden HPR-70
A System for Discrete Low Volume Sample Analysis
Introduction

The HPR-70 system is a compact bench-top gas analysis system for analysis of discrete gas samples. The system includes a batch gas inlet with for sample introduction of sample volumes to 0.2 atm.cm3. Sample introduction is via a 1cm3 dosing volume. Cascade volumes enable sample expansion to a 1 litre reservoir for admission to the mass spectrometer by molecular leak. Sample introduction to the mass spectrometer ioniser is coupled to admit sample direct to the ionisation chamber providing high sensitivity closed ion source operation.
HPR-70
HPR-70 Batch Inlet Sampling Schematic

Key:
- V1: Pneumatic valve
- V2: Pneumatic valve
- V3: Pneumatic valve
- V4: Pneumatic valve
- V5: Manual valve
- V6: Manual valve
- V7: Manual valve
- V8: Manual valve
- G1: Valve
- G2: Valve
- G3: Valve
- G4: Valve
- 1 ml: Volume
- 1000 ml: Volume
- QMS: Quadrupole mass spectrometer
- P1: Pressure
- P2: Pressure
- P3: Pressure
- LV1: All metal leak valve
- P1: Turbomolecular 70 L/s
- P2: Turbomolecular 70 L/s
- P3: Scroll pump 5 m³/hr
- G1: Capacitance manometer 10 mbar
- G2: Penning gauge
- G3: Wide range gauge

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MASsoft Professional Control Software

A multi-level software package allowing both simple control of mass spectrometer parameters and complex manipulation of data plus control of external devices.
Application Areas

- Landfill and Environmental Monitoring
  - Nuclear Gas Analysis
  - Head Space Measurements
    - Fuel Cell Analysis
    - Geological Samples
Key Features

• Dual compound turbo pumps and oil-free, totally dry
• Backing pump
• Automatic dosing, expansion and accurate sampling
• Total sample pressure measurement with capacitance manometer
• Optional aliquot filling facility
• 1 litre sample reservoir
• 1 ml injection reservoir
• Optional calibration lines
• Cart mounted version available
Recent Customers

- James Fischer Nuclear
- University of Liverpool
  - SCK Belgium
  - Bechtel Marine
  - AWE
Summary

- Allows analysis of discrete gas samples
- Multi-species analysis – 5 PPB to 100%
- Can be custom configured
• www.HidenAnalytical.com

• The Hiden website is an excellent resource with product pages, brochures, catalogues, product pages with some application notes, presentation and other information.

• Contact +44 1925 445225 for direct support.