7032 A Autosampling Systems

A flexible and reliable automated solution for canister and Tedlar® bag analysis by GCMS.

The 7032AQ / 7032AB Autosampling system automates the introduction of up to 21 MiniCans™, Bottle-Vacs™, or Tedlar® bags into a 7200 Preconcentrator. The 7032A(x) is ideal for gas-phase volatiles applications where concentrations are expected to be within 0.5–200PPBv. For higher concentrations, a loop injection valve can be added (7032AQ-L, 7032AB-L) to allow much smaller volumes to be accurately measured. With a loop injection valve installed, these autosamplers can easily attach directly to a GCMS without any need for preconcentration. For wider dynamic ranges in concentrations (0.05–100,000PPBv), a 7650 Autosampler is recommended to minimize exposure times to inlet lines.

The 7032A(x)-L autosampler provides 21-position loop injection for automated GCMS analysis of 0.1–200PPM VOCs sampled into Bottle-Vac™ samplers or 450mL–1.4L MiniCans™. Two versions make it simple to order an autosampler that is configured for either MicroValves™ (7032AQ-L) or Tedlar® Bags (7032AB-L). The 7032A(x)-L can be attached directly to a GCMS with an optional cryofocuser for maximum resolution of light VOCs for loop sizes over 0.25cc. A flow controller allows programmable splitting of sample or standards to effectively reduce volumes injected on-column.

The 7032A(x)-L supports spiking of surrogates directly into each canister before analysis, greatly enhancing reliability a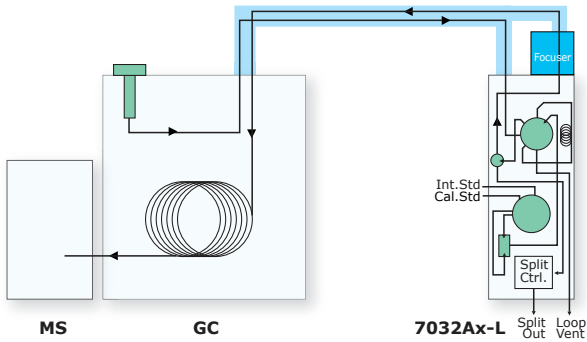nd defensibility of the generated data. The 7032AB-L features hand-tight thumbwheels for easy, tool-free connection to Tedlar® bags with ³⁄₁₆" sampling ports.

7032AQ Autosampler shown with MiniCans™ and Bottle-Vac™ Canisters

Detection limits that are possible with the 7032A(x)-L autosamplers are ultimately analyzer dependent. Newer mass spectrometers are capable of detecting VOCs down to 10–20PPB using 1.0cc loop injection and cryofocusing.

Tedlar® Bag Fittings on 7032AB Autosampler

7032AQ Autosampler shown with large canister extension fittings

Applications

- Stack Gas / Refinery Gas / Sewer Gas
- Landfill Gas / Soil Gas / Vapor Intrusion
- Indoor Air Quality / Site Investigation
- Industrial Hygiene / Personal Monitoring
- Material Offgassing / Tank Headspace
- Mold Microbial VOC Detection
- Emergency Response

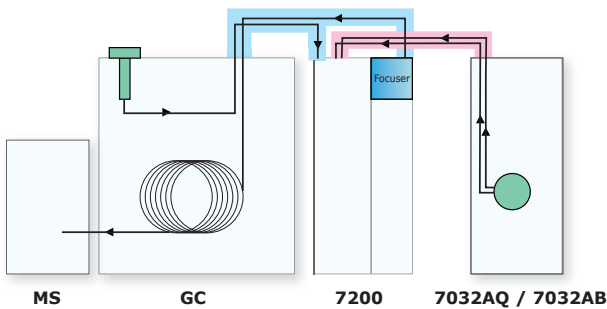| DESCRIPTION	PART #	UNIT
7032AQ – Micro-QT™ System (w/Heated Transfer Line, 2m SL2A USB cable) - Canisters Sold Separately.	7032AQ	EA
7032AB – Tedlar® Bag System (includes 3/16" fittings) - Tedlar® Bags not included	7032AB	EA
7032AB-L* – Tedlar® Bag / Loop (includes 3/16" fittings) - Tedlar® Bags not included	7032AB-L	EA
7032AQ-L* – Micro-QT™ / Loop (w/Heated Transfer Line, 2m SL2A USB cable) - Canisters Sold Separately.	7032AQ-L	EA
Cryofocusing Option	7032-02	EA
Loop Split Option	7032-01	EA
Silonite™ Coated Valve (for Sulfur Analysis: Silonite™ rotary valve and connection fittings)	7032-06L	EA
MQT Valve for Tedlar® Bag - 7032AQ	MQT-400	EA
¼" to ³⁄₁₆" Reducing Ferrules (for Tedlar® Bag connection: 10pk)	06-08022	10pk
5m SmartLab™ II USB Cable	12-51150	EA
7032A – 220-240VAC/50Hz Option	7032-230	EA

* Specify type of GC for correct communication cable

7032A Autosampler Features & Connection Options

MS **GC** **7032Ax-L** Split Out Loop Vent
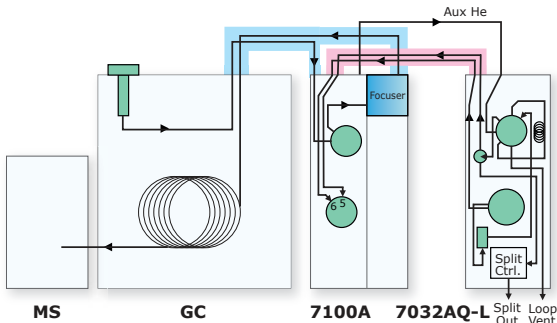
Int.Std Cal.Std

Split Ctrl.

7032AQ-L / 7032AB-L (Direct)

- 0.1 PPM to % Level Analysis

- Sample Volume Flexibility
  Adjusted by changing loop or using split option

- Focusing Option Available
  When analyzing highly volatile compounds at 0.05–0.5 PPM

- No CO_2 Management

- Applications:
  IH, C_1–C_{12} HCs by GC/FID, Process Gas, Permanent Gases by GC/TCD
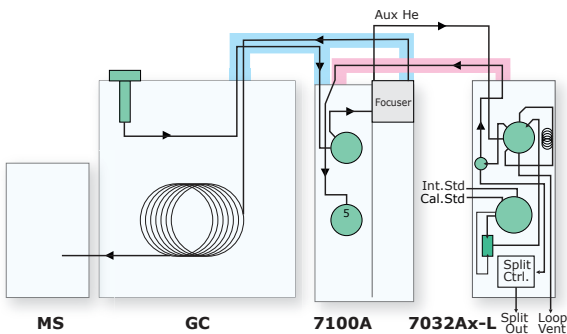

MS **GC** **7200** **7032AQ / 7032AB**

7032AQ / 7032AB Features

- Automated Analysis
  21 MiniCans™, Bottle-Vacs™ or Tedlar Bags in any order, including replicates (10–1000cc)

- Back-Flushing of Each Line After Analysis
  Utilizing automated software control

- Silonite™ Coated Transfer Lines
  Inert flow path for excellent transmission of compounds and minimal carryover

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MS **GC** **7100A** **7032AQ-L** Split Out Loop Vent

Split Ctrl.

7032AQ-L / 7032AB-L Hybrid System*

- Addition of Loop Injection Valve
  A separate flow path for high and low concentration samples

- High Concentration Sample Transfer
  To 7100A via calibrated loop injection (0.5–2cc)

- Low Concentration Sample Transfer
  To 7100A under mass flow control (10–1000cc)

- Automated Addition of Surrogate Standard
  Prior to analysis

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Int.Std Cal.Std

Split Ctrl.

MS **GC** **7100A** **7032Ax-L** Split Out Loop Vent

7032Ax-L / 7100A Preconcentration System*

- Eliminate CO_2 Prior to Analysis
  Utilizing 7100A's preconcentration traps

- Share Same GC(MS)
  For both high and low level analyses

- Share Same Calibration Curve
  For loop injection and mass flow controller introduced samples

- Applications:
  Extending TO-14 / TO-15 to PPM levels, Landfill Gas, CO_2 Purity

  * This configuration is not supported with a 7200 Preconcentrator.