

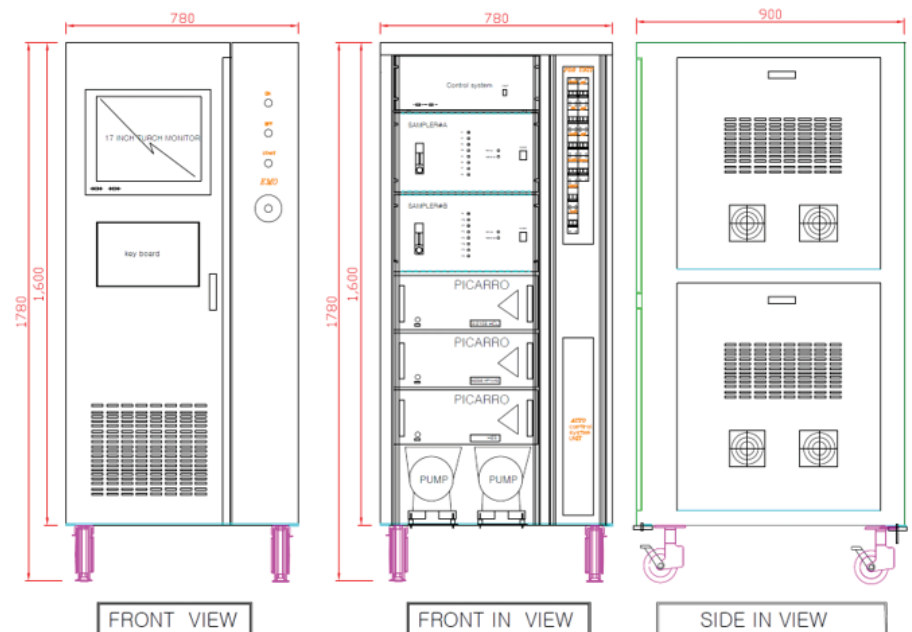
Continuous Process Monitoring AMC System

For HF, HCl, NH₃ and H₂S analyzers

PICARRO

- AMC system designed exclusively to support Picarro analyzer operation
- Simultaneous, continuous flush sequencer module provides very fast sample point scanning cycles
- Fully user-programmable system controller
- Configurable for 16, 24 or 32 sample ports
- Recovery from PPM level leak events to normal cleanroom levels in just minutes
- No degradation of analyzer performance specifications

The **Picarro Sampler System** dramatically enhances the value of Picarro gas analyzers by expanding the area of coverage to multiple sample points. The Sampler System has been designed to optimize response time in the presence of reactive gases with the lowest memory retention in the valves, connectors, sample lines and sequencer components. The Sample Sequencer Module utilizes a SilcoNert-coated mass flow controller and a fast flow, high volume vacuum pump to draw sample as far away as 200 meters. These highly reliable components assure that our AMC Process Monitoring System Modules never allow the degradation of our Picarro SI2000 Series analyzer performance! These sample sequencers provide for the lowest memory effects in the sample lines and the fastest speed of response for our analyzers. The robust sequencer design is ideal for fast switching between different stocker locations, and for covering large areas in the FAB or sub-FAB and plenum areas.



Continuously monitor up to 32 sampling points for real-time airborne molecular contamination event confirmation!

Picarro Sample System Status Screen

The screenshot displays the Picarro Sample System Status Screen. At the top left is the 'PICARRO' logo. The top right shows the date and time: '2018-01-05 14:26:21'. The main data table is organized into columns for different models: Model [SI2108], Model [SI2306], and Model [SI2307]. The table lists 16 lines, each with a name, date/time, and various sensor readings (Hcf, H2O, Temp, Press, HF, NH3, H2O, Temp, Press, H2S, Press) in different units (ppb, ppm, Torr, etc.).

Below the table are three flow control panels for different ports: [CH-1] Port01 ~ 08, [CH-1] Port01 ~ 08, and [CH-2] Port09 ~ 16. Each panel shows 'Auto control' settings and 'Current Data'.

Overlaid on the right side are three windows:

- Line Information:** Shows details for a selected line, including sample and wait times.
- PLC Program - Set Up:** Shows the active PLC program and allows setting sampling and waiting times.
- Leak Search Schedule:** A table showing the schedule for leak searches across 16 ports. The table has columns for ID, Process Name, Start, and Normal Return. Green checkmarks indicate active or scheduled searches.

AMC Process Monitoring System Software

User-selectable default and customizable programs are available for setting multiple sample point scanning & search modes. Default sample point cycle times are recommended at approximately 30 seconds each but the Sequencer Module can be set to scan through each 8-port system at two to three times this rate or faster, if required. User-programmed scenarios can also be programmed to optimize the locations of leak events, or for monitoring the leak size over time (from low level PPT concentrations into the PPB levels), and for monitoring the potential leaks over as many as 32 sample points (or more) simultaneously. Both automatic and manual modes are available for leak search schemes. Preventive maintenance cleaning cycles can be programmed on a periodic basis and System Status screens will easily indicate each sample point composition and unique pressure & temperature readings. With the high flow, continuous flush design of each Sequencer module and proper annual sample line maintenance, frequent or excessive flushing of long distance sample lines should never be necessary -- even after a significantly high concentration gas leak event in the PPM concentration levels.

A0317 Sample System Specification

Sampling Ports	A0317-16/A0317-24/A0317-32
Sampling Line	3/8" PFA
Configuration	Stationary Rack
Dimensions	31" W x 36" D x 70" H (78 x 90 x 178 cm)
Weight	485 lbs. (220 kg)
Sample Pump Max. Flow Rate	60 liter/min
Operating Conditions	5-40°C
Ambient Humidity	<99% RH non-condensing
Power Requirements	200-240 V, 50/60 Hz

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