

Tekran 2600H IO-5 Sampling and Analysis

Rev. 072926

Tekran® provides a suite of products for the measurement of ambient air and similar non-combustible gases in accordance with the US EPA Method IO-5 recommendations.

The sample gas is then passed through gold-coated quartz cartridges while the sample volume is totalized using a conventional dry gas meter. The mercury in the gas amalgamates onto the surface of the gold cartridges during sampling.

The cartridges are removed for subsequent analysis. A rugged and compact atomic fluorescence system contains a cartridge desorber, fixed analytical trap, an AF detector and the control electronics. The entire system is controlled by a PC computer through a single serial COM port. Calibration is done via vapor injections using a temperature-controlled calibration source.

Tekran Quartz-Gold Sampling Trap

- Custom made quartz substrate for high surface area, low back pressure, and reproducibility
- New, precisely controlled, optimized, high-purity plasma deposition process
- Blank and batch testing to meet strict recovery and carry-over criteria

Model 2030 - Heated Cartridge Sampler

- Warms cartridges during sampling to eliminate condensation
- Three cartridge sleeves in heated zone allow duplicate and even triplicate simultaneous sample trains to be exposed
- Heated zone is long enough to allow two gold cartridges to be placed in series within each sleeve

Model 2505 - Calibration Unit

- Suitable for field or laboratory use
- Thermoelectric chilled block
- Operates from 12 VDC or line power
- Precision temperature measurement with digital display. Resolution: 0.001 °C

Tekran Gold-Quartz Sampling Trap



Model 2030 Heated Cartridge Sampler

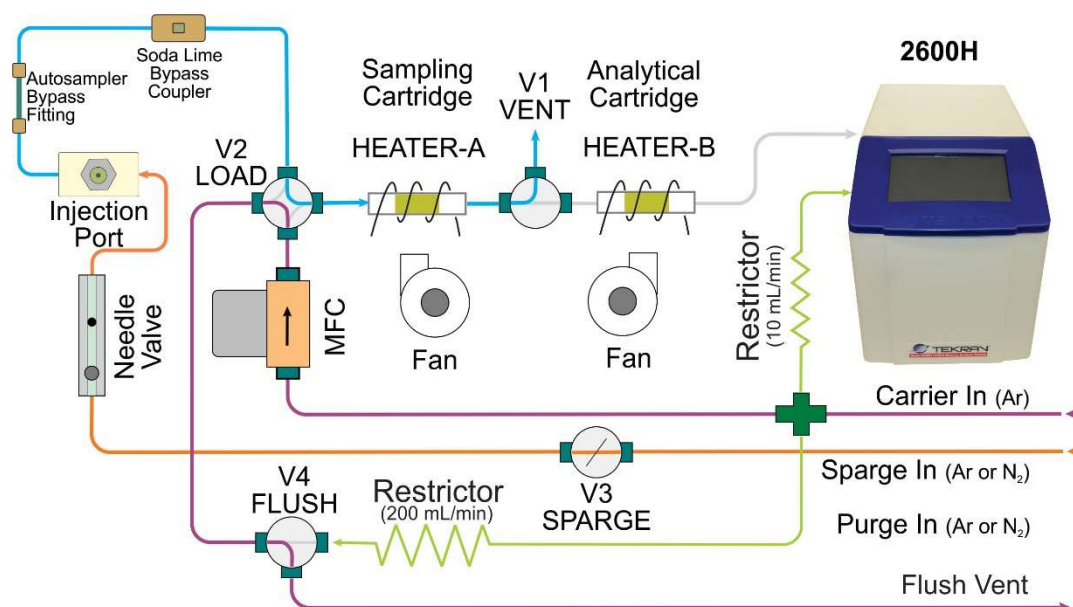


Model 2505 Calibration Unit



Model 2600H AF Mercury Analyzer

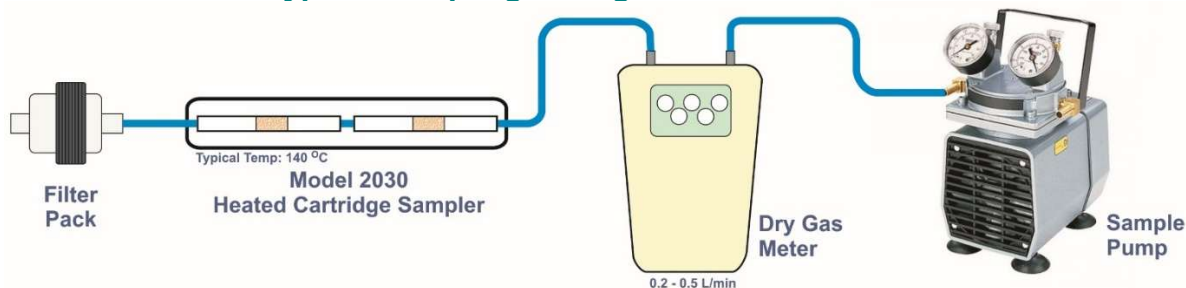
Model 2600H-IO5 Analytical Flow Diagram



Model 2600H System Features

- Suitable for field or laboratory use
- Ultra-sensitive Atomic Fluorescence (AF) detector: Typical MDL < 1.0 ng/m³
- Dual-stage gold pre-concentrator & thermal desorber:
 - ◆ Continuously variable heaters allow ramped heating
 - ◆ High-velocity cooling fans provide faster cycle time
 - ◆ PEEK valves and manifolds reduce sample path contamination
- Precision mass flow controller for superior stability
- Auto carrier shutoff to conserve carrier gas
- Built-in Injection port manifold
- 24-bit A/D converter provides wide dynamic range
- Automated desorption cycle
- Calibration using any saturated vapor injection source eg: Tekran Model 2505
- Controlled via all-new Tek-MLS software by any Windows PC
 - ◆ Software is more reliable and secure offering a wide range of new capabilities including gas-specific reporting, audit trace logs, and control charting.
 - ◆ Fully programmable desorption cycle parameters to tailor system for any special application
 - ◆ Notebook PC allows portable operation

Model 2600H-IO5 Typical Sampling Configuration



Due to continuing development, all specifications are subject to change.