

Tekran 2600 Natural Gas Sampling and Analysis

Rev. 041516

Tekran[®] provides a suite of products for the measurement of natural gas and similar process gases. This system implements an enhanced version of ASTM Method D-6350.

The Tekran Model 2642 Mercury Trap Sampling System provides heating of all pressure reduction components and allows the gas to be safely sampled in the field. The sample gas is then passed through gold-coated quartz cartridges while the sampled gas volume is totaled. 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 carryover criteria

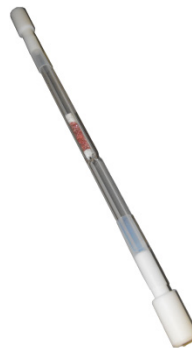
Model 2642 – Mercury Trap Sampling System

- Unique inlet design eliminates vortex-induced vibration
- All sampling paths are Silconert coated to ensure complete transfer of mercury through the sampling system
- Heated component ensures complete transfer of mercury through sampling system and prevents condensation
- Minimalized dead volume for quick equilibrium

Model 2505 - Calibration Unit

- Suitable for field or laboratory use
- Thermo electric temperature controller: no water bath required
- Operates from 12 VDC or line power
- Precision temperature measurement with digital display. Resolution: 0.001 °C

Tekran Gold-Quartz Sampling Trap



Model 2642 Mercury Trap Sampling System



Model 2505 Calibration Unit

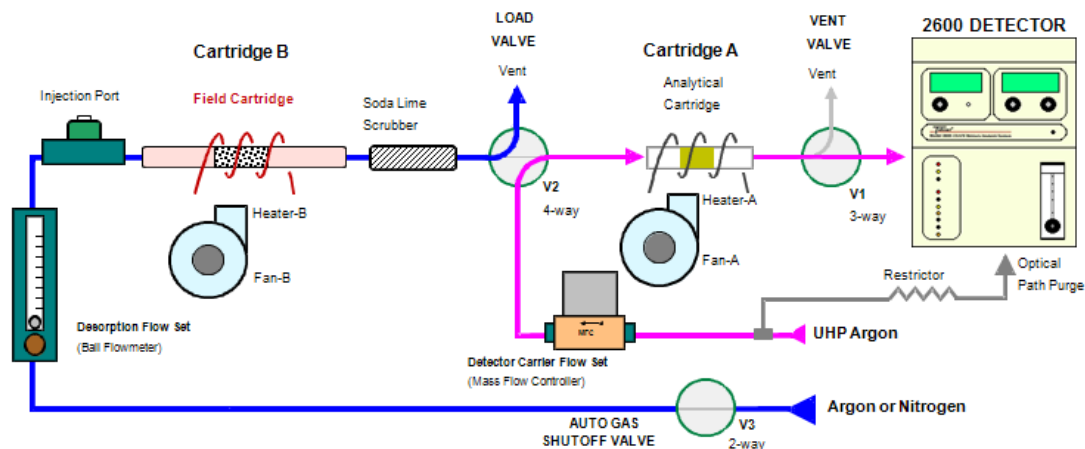


Model 2600 AF Mercury Analyzer

Applications

- Natural Gas (ASTM D-6350, ISO 6978-2)
- Process Gas Sampling

Model 2600-NG Analytical Flow Diagram



Model 2600-NG System Features

- Suitable for field or laboratory use
- Desorbs industry standard ¼" OD x 5" to 6" long friction fit cartridges eg: Tekran Gold-Quartz Cartridge
- Ultra-sensitive Atomic Fluorescence (AF) detector: Typical MDL < 1.0 ng/m³
- Dual-stage gold pre-concentrator and thermal desorber:
 - ◆ Continuously variable heaters allow ramped heating
 - ◆ Internal cooling fans provide faster cycle time
 - ◆ Teflon Load & Vent solenoids reduce sample path contamination
- All Teflon & glass sample train
- Precision mass flow controller for superior stability
- Auto carrier shutoff to conserve carrier gas
- 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 newly updated Tek-MDS 2.5 software by any Windows™ based PC through single serial port
 - ◆ The new application is faster, more reliable and offers a wide range of new capabilities including software access to hardware settings and feedback for trouble shooting and full control
 - ◆ Calibration and final results are calculated directly in ng/m³
 - ◆ Fully programmable desorption cycle parameters to tailor system for any special application
 - ◆ Notebook PC allows portable operation

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