

Model 2030 Heated Cartridge Sampler

Rev. 041614



The **Tekran® Model 2030 Heated Cartridge Sampler** allows gold coated sampling cartridges to be heated while they are exposed to a variety of gaseous sample matrices (i.e. ambient air, natural gas, or process gases). The performance of gold adsorbent cartridges is greatly enhanced if the cartridges are heated during exposure. This virtually eliminates problems with condensation or passivation of the gold surface.

Features

- Works with industry standard ¼" OD friction fit cartridges.
- **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.
- Heating of the cartridges is controlled by a precision PID temperature controller with thermocouple temperature sensing.
- Heavily insulated heater assembly allows safe handling while heating is in progress.
- Heater assembly is connected to the control unit by a detachable 10-foot cable.
- Front panel display shows current temperature and allows simple setting of heater setpoint.

Applications

- Ambient Air Sampling (US EPA IO-5)
- Process Gas Sampling
- Natural Gas (ASTM D-6350)

Typical Sampling Arrangements

A. Single Sample, Series Cartridges

This arrangement requires two cartridges and one sample totalizer (eg: dry gas meter) per sample. Two cartridges in series are usually used for both ambient air and natural gas monitoring applications since the second cartridge provides valuable information about the performance of the system. If the first cartridge is operating properly, virtually 100% of the mercury will appear on this cartridge and the second (backup) trap will see virtually no mercury. High values on the second trap indicate passivation of the first cartridge by some component in the sample matrix.

B. Dual Sample, Series Cartridges

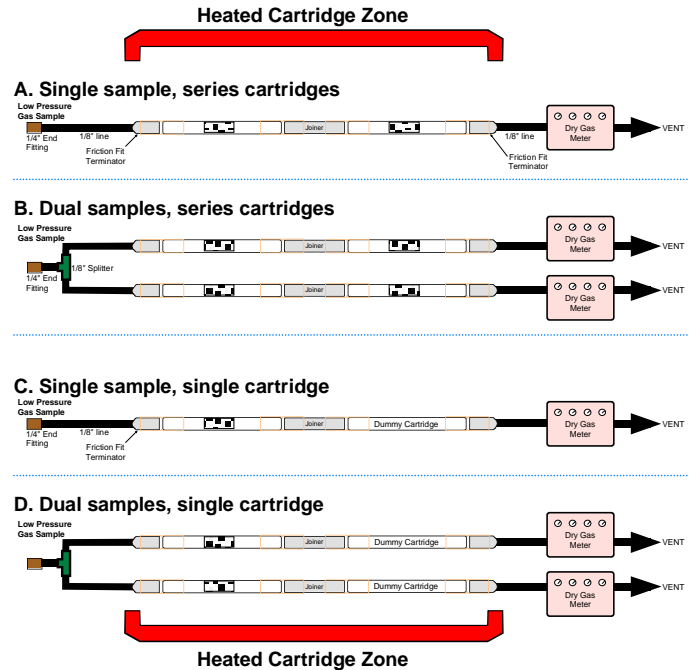
This arrangement requires *four* cartridges and *two* dry gas meters per sample. This provides all the advantages of arrangement A above. In addition, it provides duplicate samples which will give an indication of the precision of the method.

C. Single Sample, Single Cartridge

This is the simplest arrangement and requires only *one* cartridge and one dry gas meter per sample. A dummy cartridge is used in the *downstream* position so that the heated assembly remains the correct length for insertion into one of the heated sleeves. It sacrifices information regarding possible interferences in the matrix however, it may be used once the performance of the system has been established using dual stage cartridge sampling.

D. Dual Sample, Single Cartridge

This arrangement requires *two* cartridges and *two* dry gas meters per sample. It sacrifices information regarding possible interferences in the matrix however, it may be used once the performance of the system has been established. The duplicate results can be used to establish the precision of the method.



Specifications

Controller Unit:

Width:	6 "
Height:	3 1/4 "
Depth:	6 "
Weight:	2 lb.
Power:	110 - 240 VAC, 50-60 Hz, 7.5 A max.
Control Range:	30 to 160 °C
Controller Type:	Full PID
Rating:	Non-hazardous locations only

Heater Unit:

Outside Length:	12 "
Outside Diameter:	2.75 "
Number of heated sleeves:	3
Sleeve Inner Diameter:	0.375 "
Sleeve Length:	11.375 "
Sensor:	Type K thermocouple
Heater Voltage:	115 VAC Std, 230 V opt.
Heater Power:	150 VA
Connection cable:	10 ft.

Ordering

Information The **Model 2030** includes the following components and accessories.

- Control Unit
- User Manual
- Dual cartridge supply line (Qty: 1)
- Teflon cartridge joiners (Qty: 2)
- Heater Unit
- Single cartridge supply line (Qty: 1)
- Cartridge effluent lines (Qty: 2)
- Glass dummy cartridges (Qty: 2)

Options

- **Option 220** Heater Unit for 220-240 VAC operation. (Standard is 110-120 VAC)

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