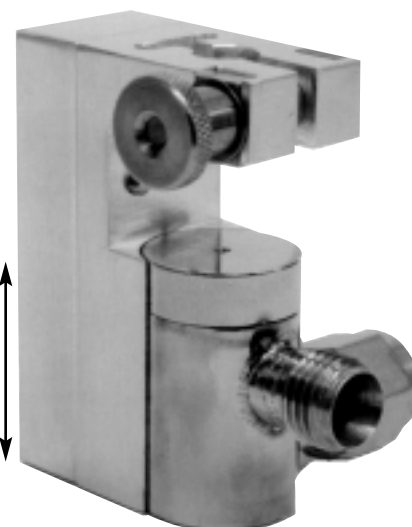


Micro Cryo-Trap

New Programmable Micro Cryo-Trap™ for the Cryo-focusing of Volatiles and Semi-Volatiles at the Head of GC Columns.



Micro Cryo-Trap™
only
1.0 inch long



Features

- Only 1.0" long - uses minimum amount of cooling gas
- Reduction of CO₂ or LN₂ use by 97% as compared to cooling the entire oven.
- Improve chromatographic resolution of early eluting peaks
- Dual programmable cryo-cooling and heating cycles
- Trap compounds in the GC oven at the head of the GC column.
- Remote input connector for switching between cryo-cooling and heating cycle switching via GC, Desorption system or manually.
- Rapid heating up to 400°C at > 400°C per minute.
- Remote start output signal for starting GC, MS or recorder.
- Easy Installation
- Clamp Mounts onto GC Injection Port

Applications

- Thermal Desorption Sample Trapping
- Purge and Trap Systems
- GC Headspace Sample Analysis
- Multi-dimensional GC Applications

The Micro Cryo-Trap consists of a small heating/cooling chamber which is 3/4" in diameter and 1" long and mounts on the bottom of the injection port just inside the GC oven. In the center of the chamber is a small stainless steel capillary through which the capillary column freely passes. Capillary columns up to megabore (0.53mm I.D.) diameters can be used. Around the stainless steel capillary tube a heating coil is wound to provide for the rapid heating of the capillary tube. A thermocouple provides accurate measurement of both the cooling and heating temperatures. Either Liquid CO₂ or Liquid Nitrogen for cooling is introduced into the Micro Cryo-Trap™ (Cooling Gas In), and is exhausted through the outlet. The exhaust can either be vented into the GC Oven or a tube can be attached to vent the cooling gas external to the GC.

The control of the Micro Cryo-Trap is provided via an independent Cryo-Trap Controller provided with the System. Both the Cryo-Cooling and heating temperatures are set via this digital temperature controller. The system can be used either manually to switch between cooling and heating or can be operated automatically via an input signal from a controlling device.

For the cooling operation the cooling gas is pulsed into the chamber. Liquid CO₂ (Model 971) will cool down to -70° C. Liquid Nitrogen (Model 981) will cool down to -180°C. The cooling temperature can be set to any temperature between room temperature and the lower limits of the cooling gas. The temperature controller will pulse the cooling gas into the chamber to accurately control the temperature to the value you set. The thermocouple provides the feedback to both regulate the temperature as well as display the Micro Cryo-Trap™ temperature on the display of the temperature controller. The electronics of the Model 971 and Model 981 are different due to the different cooling properties of the liquid CO₂ and Liquid Nitrogen. Therefore parts are not interchangeable between the two models and the particular model can only be used with the cooling gas for which it was designed.

Each Micro Cryo-Trap System consists of the Micro Cryo-Trap™ which goes inside the GC oven, the cryogenic gas valve, the Dual Temperature Controller and cooling gas tubing.

Free Application Notes Available - Call SIS at (908) 788-5550