

**INNOVATIVE PRODUCTS**

# EZ No-Vent™ GC-MS Connector

**Change Columns in Minutes, Without Venting**



Available for  
Agilent or Varian  
GC/MS Systems

## EZ No-Vent™ GC Column-Mass Spectrometer Connector

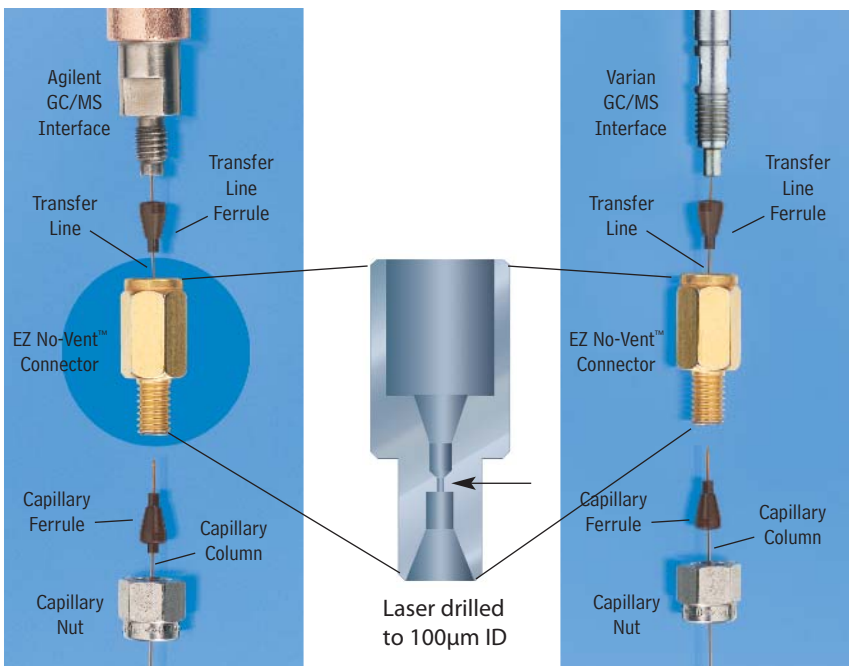
For Agilent GCs with 5971/5972 or 5973 GC/MS or Varian Saturn 2000 Series GC/MSs

- Change columns in minutes without venting—100µm transfer line throttles vacuum and prevents MS venting.
- Easy to install and maintain—no special tools or plumbing required.
- Gold-plated body for inertness.
- Deactivated transfer line keeps analytes focused; high-temperature polyimide ferrules eliminate leaks at the problematic transfer line fitting.
- Lower cost than other “no-vent” fittings.

We designed the EZ No-Vent™ GC column-mass spectrometer connector to be simple and easy to use. After studying user feedback concerning our EZ-Vent™ 2000 connector, we re-engineered the connector fitting for even better performance.

A critical orifice in the EZ No-Vent™ connector minimizes the amount of oxygen allowed into the MS source, eliminating the need for purge gas and enabling you to skip the lengthy vent and pump-down cycle otherwise required when you make a column change. Save nearly a day of downtime with each column change by using an EZ No-Vent™ connector. The EZ No-Vent™ connector easily attaches to the MS source without special tools or extra plumbing. The diagram below shows the internal structure of the connector.

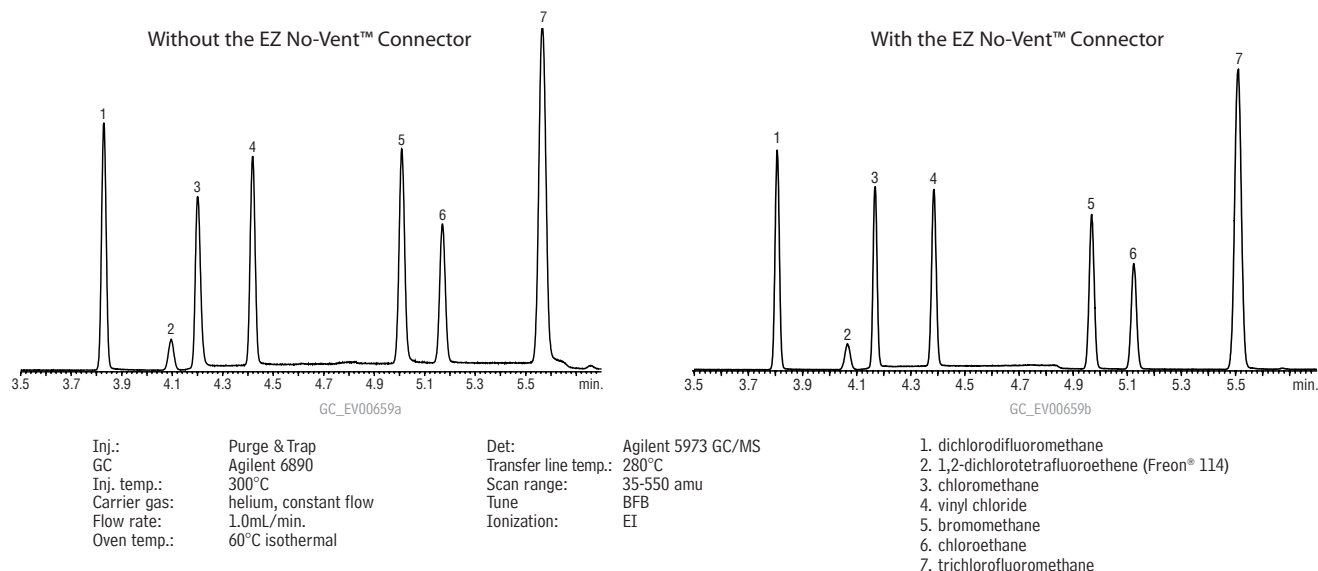
The EZ No-Vent™ connector incorporates a laser machined orifice for optimal flow through the fitting. Coupled with the 100µm ID transfer line, it minimizes the amount of oxygen entering the MS, which eliminates the need for purge gases.



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innovation!

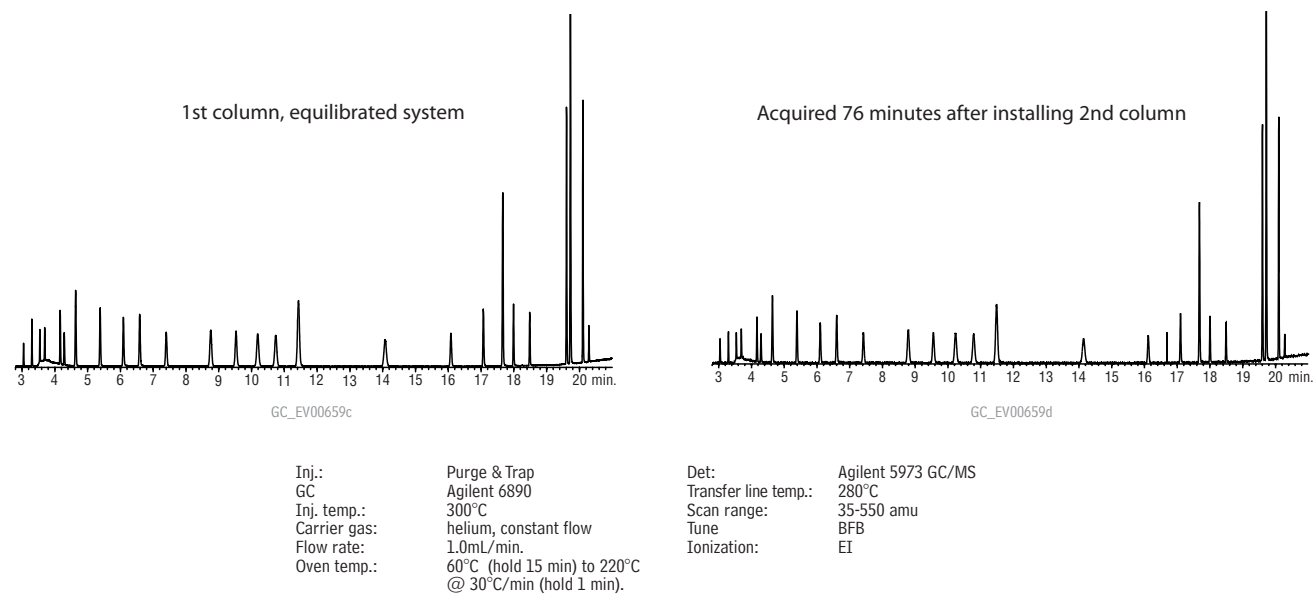
## The EZ No-Vent™ Connector Does Not Add Dead Volume

We tested the EZ No-Vent™ connector, using highly volatile gaseous sample components that are very susceptible to tailing in the presence of dead volume. We operated the system as a purge-and-trap GC/MS system, initially with a split at the injection port and the column inserted directly into the MS interface. Subsequently, we included the EZ No-Vent™ connector at the MS interface. We anticipated that any dead volume in this fitting would produce significant tailing and broader peaks, relative to the direct connection. Peak shape was excellent using the new fitting, as shown below.



## The EZ No-Vent™ Connector Allows Reproducibility

Similarly, we used an application-specific test to evaluate the ability of the MS (equipped with a turbomolecular pump) to stabilize after we changed columns without venting. Again we used a purge-and-trap system, halogenated volatiles as the sample, and an Rtx®-624 column to separate the analytes. We acquired the first chromatogram at 08:12 AM, then changed the column. We acquired the second chromatogram 76 minutes later, at 09:28 AM. Note the excellent peak shapes and responses. In the interval between the two analyses we verified MSD tuning, and the system passed bromofluorobenzene (BFB) criteria. Subsequent detailed investigations have established that the EZ No-Vent™ connector will allow several column changes in a single day, with no harm to the MS or loss of data quality.



If you are tired of waiting for your MS to stabilize, use an EZ No-Vent™ Connector.  
It will reduce MS downtime, allowing increased throughput!

# EZ No-Vent™ GC Column-Mass Spectrometer Connector

For Agilent GCs with 5971/5972 or 5973 GC/MS or Varian Saturn 2000 Series GC/MSs

- Change columns in minutes without venting.
- Easy to install and maintain.
- Gold-plated body for inertness.
- Keeps analytes focused; no leaks at the transfer line fitting.
- Lower cost than other “no-vent” fittings.

## EZ No-Vent™ Connector Kit for Agilent GCs

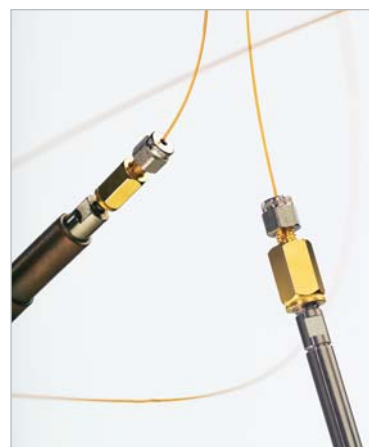
Description	qty.	cat.#
EZ No-Vent™ Connector Kit for Agilent 5971/5972 and 5973 GC/MS Kit includes: EZ No-Vent™ Connector, two 0.4mm ID ferrules for capillary column, two 0.4mm ID ferrules for transfer line, 100µm deactivated transfer line (3 ft.), column plug, column nut.	kit	21323

## EZ No-Vent™ Connector Kit for Varian GCs

Description	qty.	cat.#
EZ No-Vent™ Connector Kit for Varian Saturn 2000 Series MSs Kit includes: EZ No-Vent™ Connector, two 0.4mm ID ferrules for capillary column, two 0.4mm ID ferrules for transfer line, 100µm deactivated transfer line (3 ft.), column plug, column nut.	kit	22423

## Replacement Parts for EZ No-Vent™ Connector for Agilent or Varian GCs

Description	qty.	cat.#
Replacement ferrules for connecting capillary column to EZ No-Vent™: 0.4mm ID	2-pk.	21015
0.5mm ID	2-pk.	21016
Replacement ferrules for connecting transfer line to EZ No-Vent™: 0.4mm ID	2-pk.	21043
Replacement 100µm deactivated transfer line	3 ft.	21018
Replacement EZ No-Vent™ Column Nut	5-pk.	21900
Replacement EZ No-Vent™ Plug	2-pk.	21915
Open-End Wrenches (1/4" x 5/16")	2-pk.	20110



The EZ No-Vent™ connector kit installs easily, without special tools or plumbing.

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