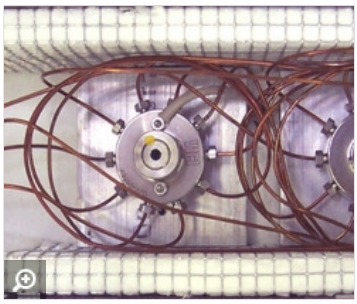
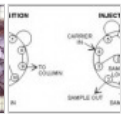
SRI Instruments

Custom Gas Chromatographs

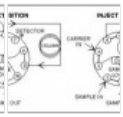
10 PORT GAS SAMPLING VALVES & 22 PORT STREAM SELECTOR VALVES



Dual Valves



8690-0063



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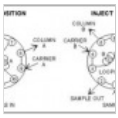
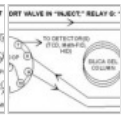


8690-0077



8690-0088

10 Port Gas Sampling Valves & 22 Port Stream Selector Valves

10 Port Gas Sampling Valves & 22 Port Stream Selector Valves

- **Heated, thermostatted valve oven**
- **Standard & custom plumbing configurations**
- **Electronically actuated with PeakSimple control or manually actuated**
- **1or 2 valve capability**

SRI uses 10 port gas sampling valves because they provide more analytical flexibility for the same cost as four or six port valves. 10 port gas sampling valves can easily be plumbed to replicate the function of the simpler valves, while offering many other possible configurations, including: Inject Only, Inject and Backflush, Pre-column Backflush to Vent, Column Sequence Reversal, Alternate Loop Inject, and Dual Loop-Dual Column. Many more plumbing configurations are possible, especially when multiple valves are plumbed together.

The heated valve oven can be adjusted from ambient to 175°C (up to 300°C for a manual valve). It mounts on the 8610 GC, and can accommodate two electrically actuated and one manually operated valve. Because the valve oven is right next to the column oven, tubing runs are short with no cold spots, which results in sharper peaks.

Each valve includes 1/8" stainless steel bulkhead fittings on the front of the valve oven for sample in/out connections. A single heated (375°C max) fast-cooling adsorbent trap plumbed as the loop of the gas sampling valve is also available for applications where sample concentration is desired. The trap cools to a user-controlled setpoint, not just to ambient temperature, so the adsorbent characteristics (water rejection, etc.) can be manipulated.

The valve plumbing configuration shown at right is the standard 6-port configuration. The sample loop is inserted into the carrier gas stream when the valve is rotated to the INJECT position.

The same 10-port valve can also be configured to backflush the column when the valve is rotated. Backflushing can often shorten the analysis by eliminating the need to program the column temperature up to elute high boiling analytes.

A single 10-port valve can be plumbed to inject the same sample onto two separate loops. This is especially useful when two different carrier gas types are used, or when the detectors employed have very different sensitivities and need different sample sizes injected.

The 10-port valve configuration shown at right is our Multiple Gas Analyzer #1 (MG#1) valve. In the LOAD position, the sample loop is filled with fresh sample gas, and the Silica Gel column is downstream of the MoleSieve column. When the valve is rotated into the INJECT position (shown), the contents of the loop are flushed into the Silica Gel column, which is now upstream. The lightest analytes blow through onto the MoleSieve column for separation. The valve is then rotated back to the LOAD position, just prior to the elution of ethane, for the separation of C2-C6.

8690-0063 10-port Manually actuated valve, plumbed & tested* $ 1,360.00

8690-0065 10-port Electrically actuated valve, plumbed & tested* $ 2,280.00

8690-0077 Automated 22-port, 10-stream selection valve, stand-alone, plumbed & tested $ 5,110.00

8690-0088 Thermostatted valve oven, mounted on an 8610C GC $ 910.00

***any valve ordered without a thermostatted (heated) valve oven must be installed in an unheated valve oven, additional charge: $ 300.00**

Prices are USD List Prices (in USA)
- add to SRI 8610C GC
configured with GC Detector options etc

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