

Product Bulletin 228

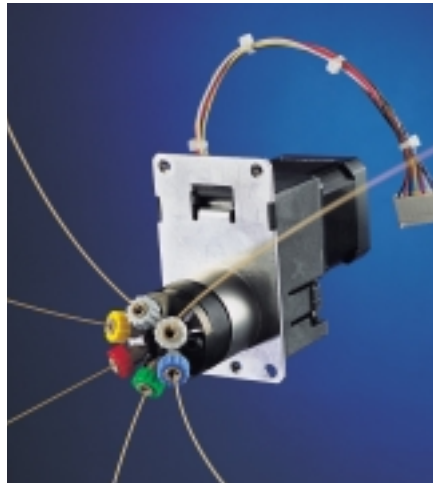
Six- and Ten-Port Micro-Scale Switching Platforms

7800E/RV800 and 7860E/RV860

- Lowest dispersion available for micro applications
- DuraLife™ stator process provides extremely long valve lifetimes
- Unique RheFlex® micro fittings design for dependable zero dead volume connections
- Dependable position feedback control for precise, accurate switching
- Rheodyne design support speeds your development and reduces time to market

Incredibly Low Dispersion

In our long tradition of fluidics innovation, Rheodyne now offers low dispersion platforms with extremely low port-to-port volumes and incredibly low dispersion characteristics. Building on Rheodyne's classic Model 8125 and Model 7520 micro valve technology, Rheodyne's 7800E/RV800 and 7860E/RV860 are revolutionary steps in micro fluidics, combining state of the art component fabrication with materials innovation. The result is a fluidic assembly capable of delivering low dispersion for the most demanding micro fluidic applications.



7800E



RV800

Complete Fluidics Platforms

The Model 7800E/RV800 and 7860E/RV860 low dispersion platforms, combined with our RheFlex® Fittings and Tubing, ChromTRAC™ Color-Coding System, and accessories deliver a complete micro

fluidics package with the highest level of product dependability. Every fluidic assembly includes Rheodyne design support from product concept to manufacturing and technical support.

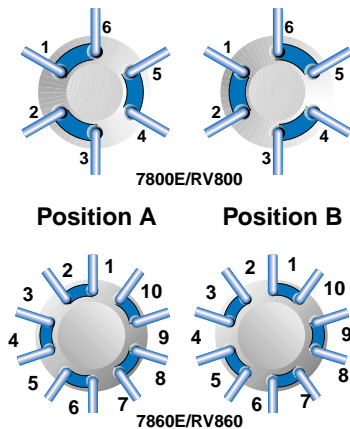


Fig. 1. Flow diagrams of two-position, six- and 10-port liquid-ends. Numbered circles represent valve ports. The heavy blue lines represent the internal connecting passages.

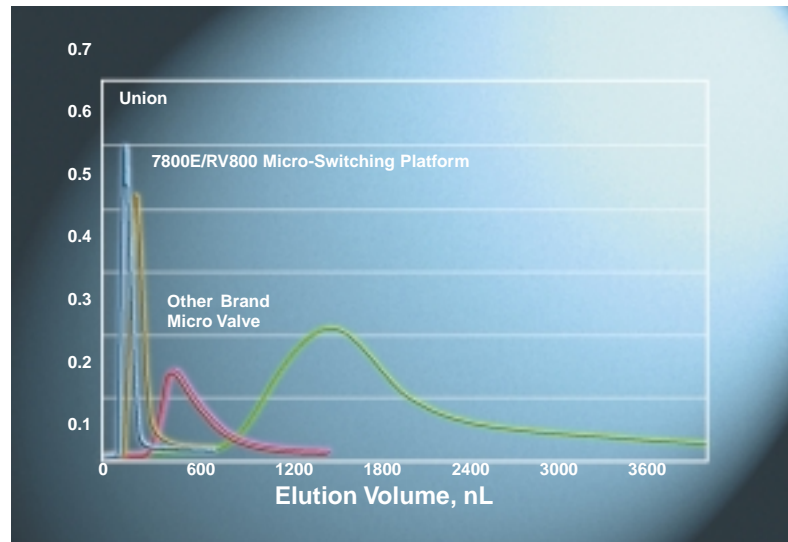


Fig. 2. Dispersion characteristics of Rheodyne Model 7800E/RV800 switching platforms (gold) compared to zero dead volume union (blue), other brand micro valve (purple), and a standard HPLC injection valve (green).



Minimal Port-to-Port Volume

Internal passages are fabricated to 0.2 mm (0.008"). As a result dispersion is lower than any valve available. RheFlex micro fittings designed specifically for Model 7800E/RV800 and 7680ERV860 platforms ensure dependable zero dead volume connections. The total port-to-port volume is less than 70 nL and its dispersion characteristics are superior to all other micro valves available today.

100,000 Duty Cycles

Rheodyne's new DuraLife™ processed stator offers extended valve lifetime - exceeding 100,000 duty cycles. This extended lifetime platform also reduces in-field service costs.

Accessories

Rheodyne accessories are specially designed for Rheodyne products. These include RheBuild™ Kits that contain all the parts, tools, and instructions to maintain the precision performance of Rheodyne fluidic platforms. In addition, a wide variety of sample loops are also available from Rheodyne.

Design Support

As you have come to expect from all Rheodyne products, the low dispersion micro-fluidic platforms include established Rheodyne design support. Rheodyne project teams will assist you in creating the ideal fluidic assembly to meet your needs, technical and economic. With our custom design approach to your assembly, our project team can help resolve any solvent compatibility, signal connection, mounting, or fluid connection issues. Incorporation of the appropriate fittings, tubing, connectors, and mounting plates can speed the design phase and simplify your final instrument manufacturing process. This will contribute to lower manufacturing and reduced field service costs. The Model 7800E/RV800 and 7690E/RV860 low dispersion platforms are a culmination of Rheodyne's 30 years of valve design

expertise and offer unparalleled innovation.

Specifications

Pressure: 34MPa (345 bar, 5000 psi)

Wetted Surfaces:

DuraLife™ Processed

Flow Passages: 0.2 mm (0.008")

Operating Temperature: 4° - 80°C

Storage Temperature: -40° - 80°C

Additional Information

Specification Sheets for Models 7800E, RV800, 7860E, and RV860 platforms are available upon request or for downloading from www.rheodyne.com. Contact your Rheodyne Sales Manager for more details or contact us at www.rheodyne.com.



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