

## Product Bulletin 114

# Type 70 Switching Valves

- Low volume flow passages, from 0.6 mm to 1 mm
- Manual or automatic operation
- Multiple switching patterns available
- Applicable to column selection, sample clean-up and enrichment, column programming and backflushing

### HIGH PRESSURE SWITCHING

Rheodyne Type 70 Switching Valves are designed specifically for stream switching in high performance liquid chromatography. Ports are threaded to accept Rheodyne RheFlex® male nuts and ferrules for 1/16" OD stainless steel tubing. A rotor seal made from an inert polymer with connecting flow passages bears against the stator under spring pressure sufficient to hold leak-tight at the set pressure.

Rotation of the valve shaft turns the rotor through 60° and allows the rotor flow passages to connect different ports. Each Type 70 Valve has a different switching pattern determined by the rotor seal flow passages and external port connections. Model 7060 includes a 60° spring detent mechanism which permits full circle rotation in either direction and ensures that the rotor falls into each of the six positions.

### "L" MODELS

The large bore "L" models have larger flow passage diameters and also accommodate 1/16" OD tubing. L Models are recommended when the pressure drop must be limited. See Rheodyne Technical Note 7.

### SUGGESTED APPLICATIONS

Type 70 High Pressure Switching Valves can perform a variety of common laboratory applications. Two-position valves are used for two column selection, column backflushing, and flow diversion, while two six-position valves are used to form a six column selection system.



### ACCESSORIES

Pneumatic Actuator "P" models, accessory Mounting Panels, and RheFlex Fittings sets are available. Visit [www.rheodyne.com](http://www.rheodyne.com) for detailed descriptions and part numbers.

### SPECIFICATIONS

**Maximum Operating Pressure:**  
48 MPa (483 bar, 7000 psi); L Models - 34 MPa (340 bar, 5000 psi)

**Maximum Operating Temperature:**  
150°C; Model 7060L - 80°C

**Flow Passage Diameters:**  
Model 7000, 7030, 7040 - 0.6 mm (0.024") and 0.5 mm (0.018"); Model 7060 - 0.4 mm (0.016") and 0.5 mm (0.018"); L Models - 1.0 mm (0.040")

**Wetted Surfaces:**  
stainless steel and an inert polymer

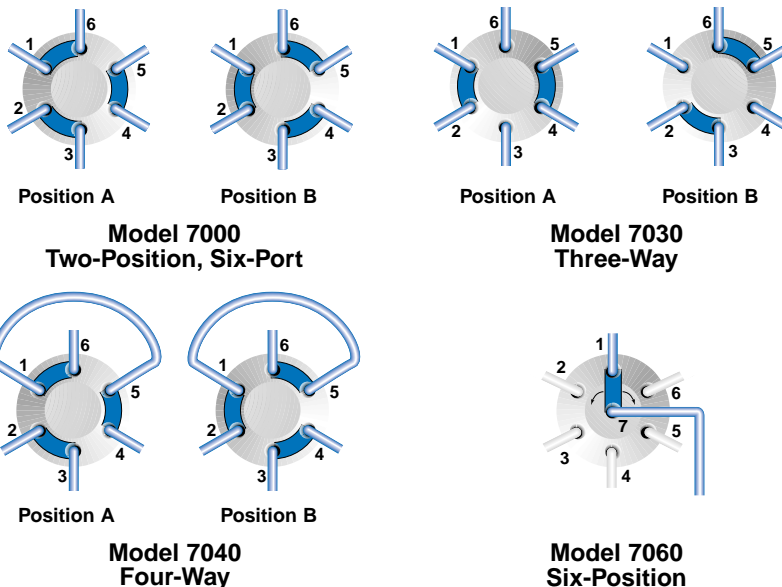


Fig. 1. Flow diagrams of Rheodyne Type 70 high pressure switching valves.

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## SUGGESTED APPLICATIONS

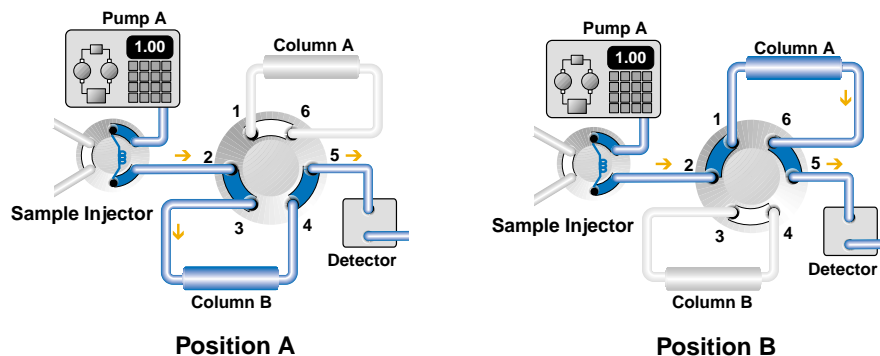


Fig. 2. Two column selection using Model 7000.

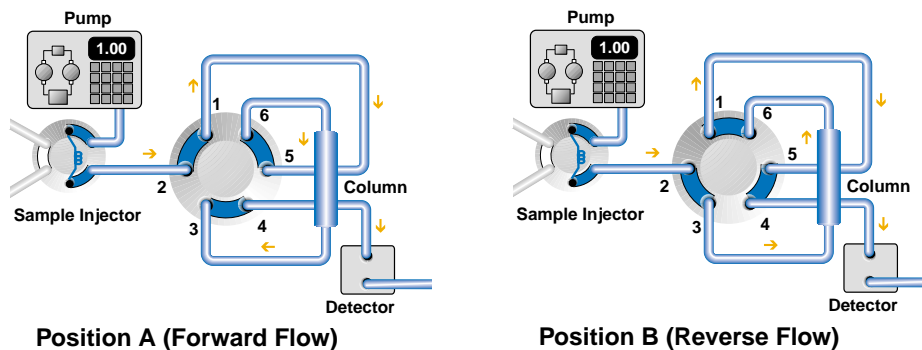


Fig. 3. Illustration of column flow reversal for backflushing using Model 7040.

### Ordering Information

Part Number	Description
7000	Two-Position, Six-Port Switching Valve
7000L	Two-Position, Six-Port Large Bore Switching Valve
7030	Three-Way Switching Valve
7030L	Three-Way Large Bore Switching Valve
7040	Four-Way Switching Valve
7040L	Four-Way Large Bore Switching Valve
7060	Six-Position Switching Valve
7060L	Six-Position Large Bore Switching Valve

RheBuild™ Kits are available for all Rheodyne valves. Each kit includes all parts, tools, and instructions to maintain precision performance.



### Ordering Information

Part Number	Description
7010-999	RheBuild Kit for Models 7000 and 7040

