



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 for detailed descriptions and part numbers.

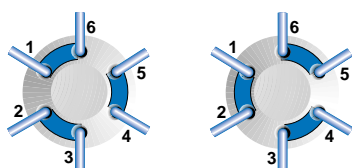
SPECIFICATIONS

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

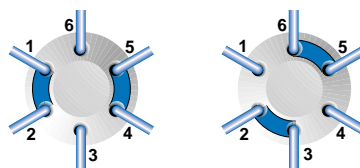
Maximum Operating Temperature:
150°C; Model 7060L - 80°C

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")

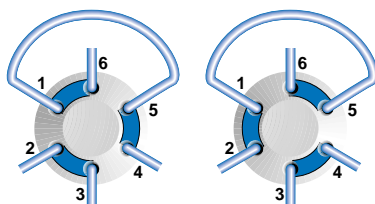
Wetted Surfaces:
stainless steel and an inert polymer



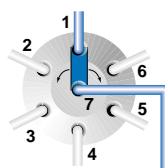
Position A Position B
Model 7000
Two-Position, Six-Port



Position A Position B
Model 7030
Three-Way



Position A Position B
Model 7040
Four-Way



Model 7060
Six-Position

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

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Type 70 Switching Valve



SUGGESTED APPLICATIONS

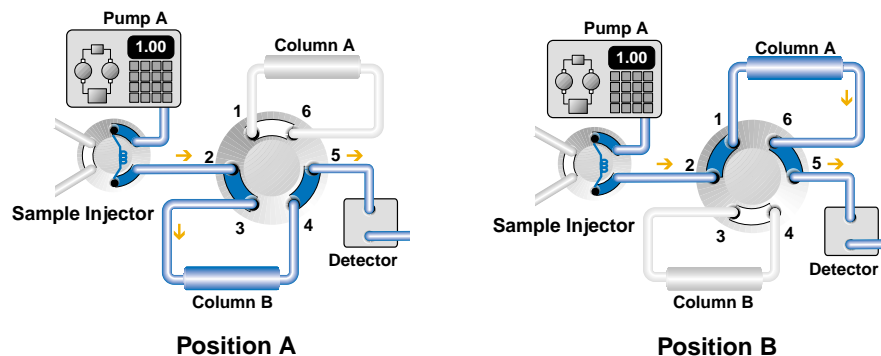


Fig. 2. Two column selection using Model 7000.

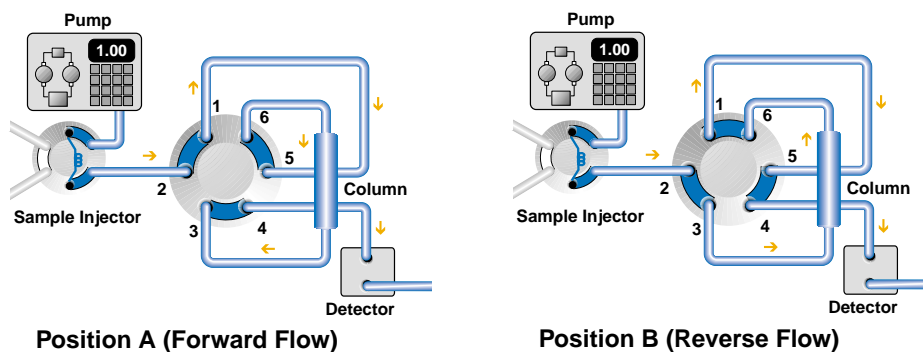


Fig. 3. Illustration of column flow reversal for backflushing using Model 7040.

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

