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

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

Fig. 2. Two column selection using Model 7000.

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

Ordering Information

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<th>Part Number</th>
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<td>Two-Position, Six-Port Switching Valve</td>
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<tr>
<td>7000L</td>
<td>Two-Position, Six-Port Large Bore Switching Valve</td>
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<td>7030</td>
<td>Three-Way Switching Valve</td>
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<tr>
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<td>Six-Position Switching Valve</td>
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<td>7060L</td>
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RheBuild™ Kits are available for all Rheodyne valves. Each kit includes all parts, tools, and instructions to maintain precision performance.

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<td>7010-999</td>
<td>RheBuild Kit for Models 7000 and 7040</td>
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