

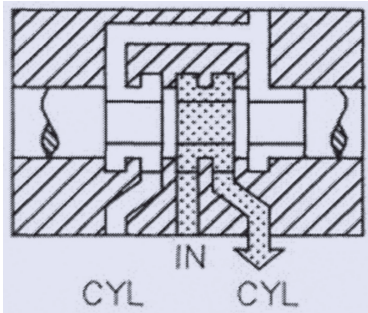
SPOOL FUNCTION OPTIONS

SPOOL DIAGRAMS
(SEE NOTE 1 BELOW)

SPOOL
TYPE

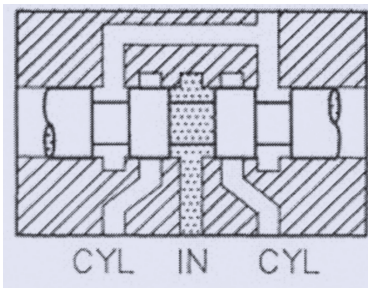
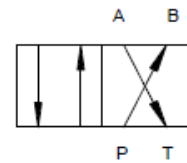
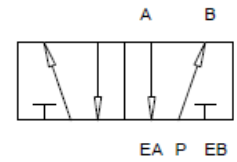
SPOOL FUNCTION

ANSI SYMBOL
(SEE NOTE 2 BELOW)



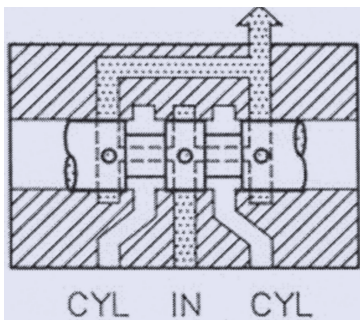
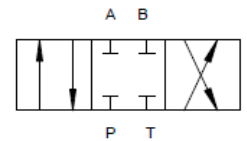
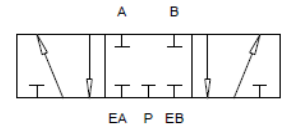
TYPE 1

Two position, positive lap spool used for conventional 4-way, 2-position applications. Can be used as a normally open or normally closed 3-way valve by simply plugging one cylinder port. Use for air and hydraulic service.



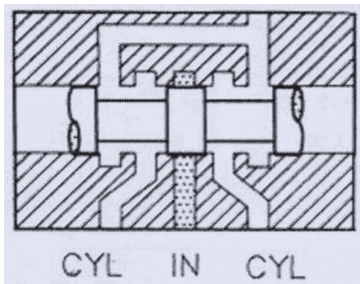
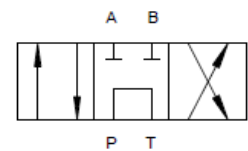
TYPE II

Three position, closed center spool with wide lands. All ports are blocked and isolated in the center position. Typically used for "position- and-hold" or "inching" circuits (will not hold position for long periods of time). Use for air and hydraulic service.



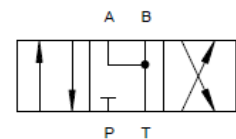
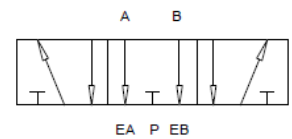
TYPE IV

Three position, cylinder ports blocked with cross drilled spool to allow pressure to bleed to tank port. Do not use in a "series" circuit and limit tank back pressure to 250 PSI maximum. Use for hydraulic service only.



TYPE V

Three position supply blocked with cylinder ports to tank (commonly referred to as exhaust open center in pneumatic terminology). Use for air and hydraulic service.

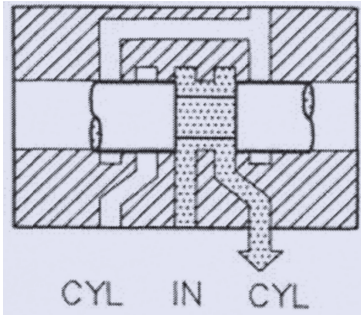


SPOOL DIAGRAMS
(SEE NOTE 1 BELOW)

SPOOL
TYPE

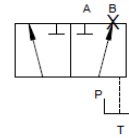
SPOOL FUNCTION

ANSI SYMBOL
(SEE NOTE 2 BELOW)

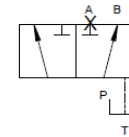


VII

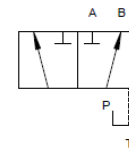
Two position specially machined spool that allows the valve to be used as either a 2-way normally open or normally closed unit. Valves with this spool function are supplied with a "loose plug" that can be customer installed in outlet port "A" or "B" to yield the normally open or normally closed function that is desired. These models may also be used as a pressure selector with two different pressures being piped into the cylinder ports while using the inlet port as a common outlet. The third type of function is to be used as a pressure diverter with the inlet pressure being diverted to one of the two outlet ports. Use for hydraulic service only. **Note: Tank port must be left open.**



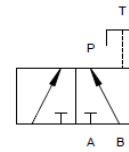
TYPE VII 2-way N/C



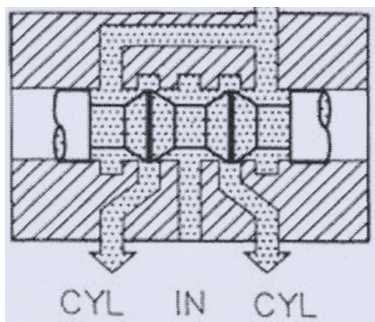
TYPE VII 2-way N/O



TYPE VII Diverter

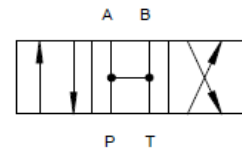


TYPE VII Selector



TYPE VIII

Three position, all ports open to tank. Unique function that can also be suitable for negative lap servo applications. Use for hydraulic service only.



Note 1: All spool diagrams shown are for hydraulic valve bodies. Four ports are shown, all pneumatic valves will have 5 ports.

Note 2: Single operator, spring return valves will have supply "P" connected to outlet "B" in the non-actuated (spring return) condition. Outlet "A" will be connected to exhaust port "EA" in pneumatic valves and outlet "A" will be connected to "T" for hydraulic valves in the non-actuated condition.