

PRESSURE SEQUENCE VALVES

Pressure Dependent Valves

The following Pressure Dependent Controls are often used in Pneumatic applications

- Pressure Sequence Valve
- Pressure Relief Valve
- Pressure Regulator

Pressure Sequence Valves

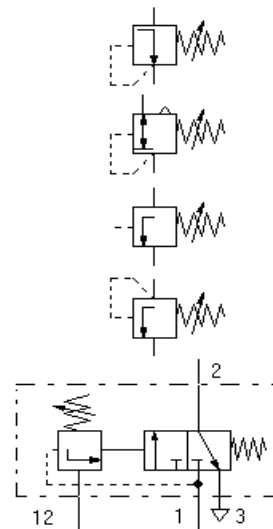
Adjustable pressure regulating valve
Non-relieving type

Adjustable pressure regulating valve
relieving type (overloads are vented)

Sequence valve
external source

Sequence valve
in-line

Sequence valve
combination



Pressure control valves

Figure 6.1 Pressure Control Valves

- Pressure Sequence valve is essentially a switch on or off valve
- Sequence Valve generates a pneumatic signal if the sensing pressure [signal input] is more than the desired set pressure
- This generated out put signal is used to control the movement of cylinder by using it as a set signal or reset signal to the final control valve to obtain forward or return motion respectively

- Used for applications such as bonding cylinders, clamping cylinder etc. to ensure desired minimum pressure in the cylinder
- This is a combination valve, having two sections. One of the section is a 3/2 directional control and the other a pressure control valve

Pressure Sequence Valve

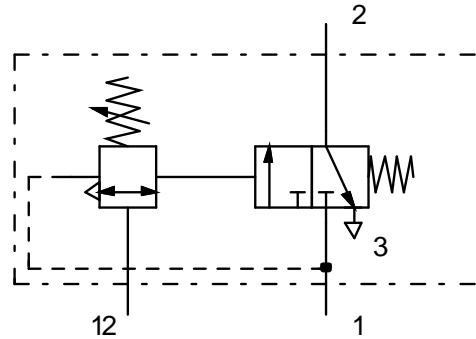


Figure 6.2 Pressure Sequence Valve

Sensing pressure signal is introduced at port 12

Manual adjustment of pressure setting is done with the help of a cap screw/knob which is spring loaded. Clock wise rotation of knob results setting for higher pressure setting and anticlockwise rotation of knob results in lower pressure setting.

The right section is basically a 3/2 directional control valve [NC] - pilot operated using pressure signal derived from left section.

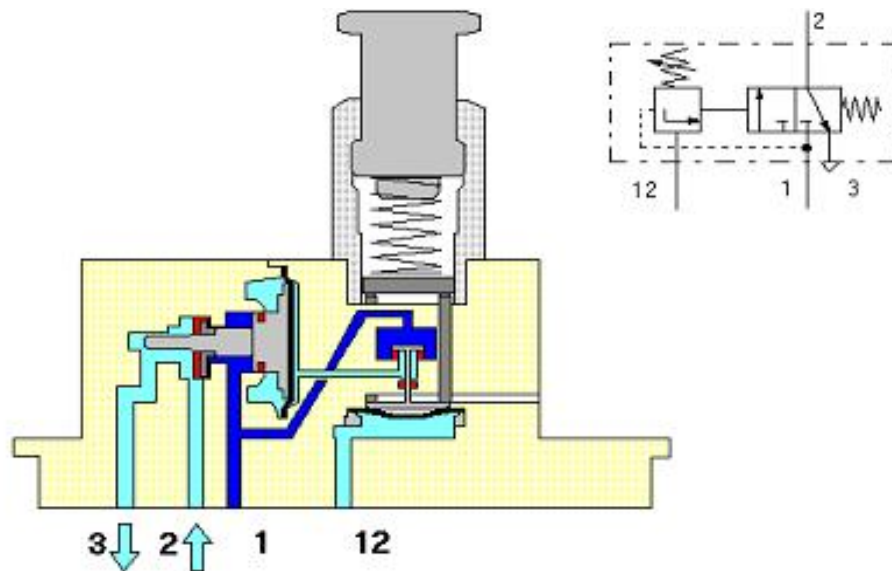


Figure 6.3 Adjustable Pressure Sequence Valve

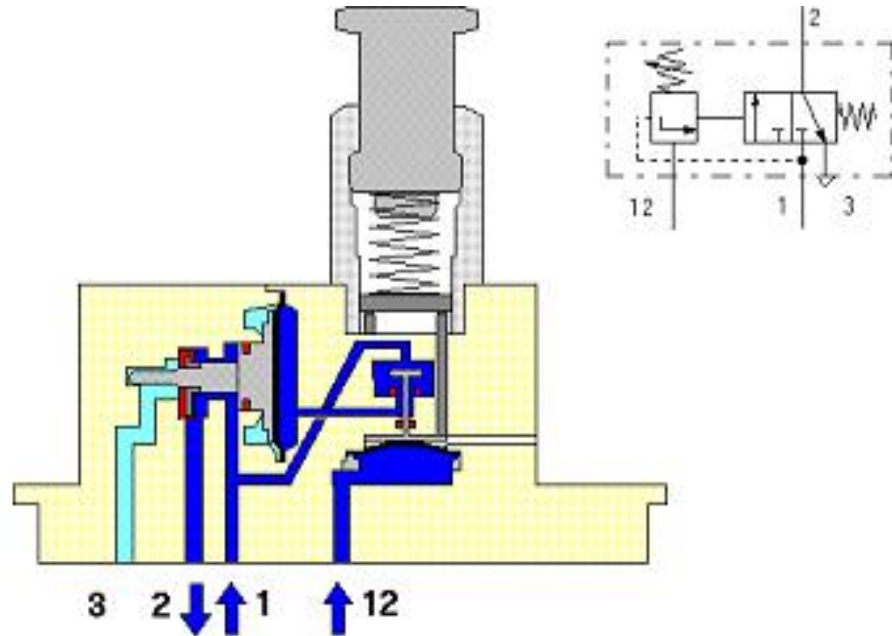


Figure 6.4 Adjustable Pressure Sequence Valve. Actuated

Pressure Sequence Valve Circuit

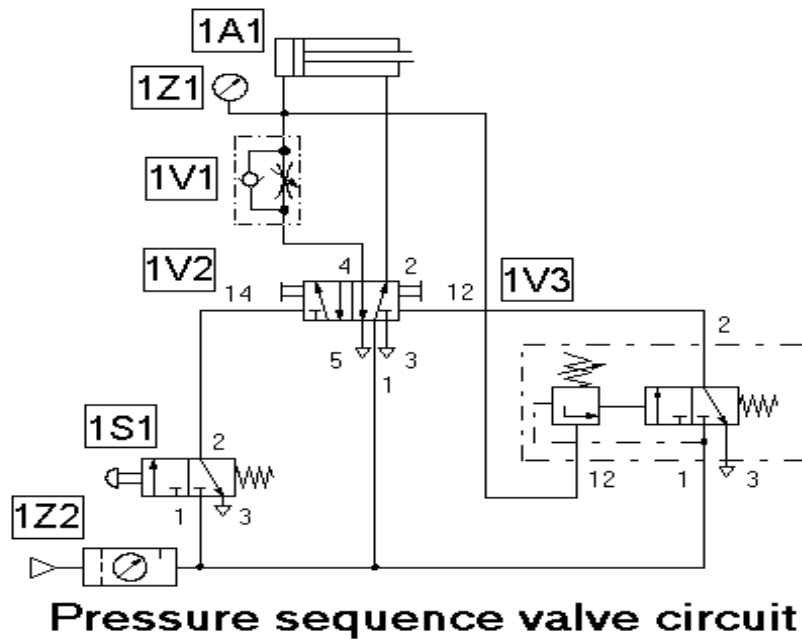


Figure 6.5 Adjustable Sequence Valve Circuit