

BENCOR (Pty) Ltd.

Pressure valves



Sequence valves with check valve type VR

Pressure valves govern the pressure within a hydraulic system. The type illustrated below is a sequence valve which generates a constant pressure difference between inlet and outlet of the flow. The flow in opposite direction (reflow) is unhindered via a by-pass check valve.

This valve shows minor leakage like other spool valves in flow direction $V \rightarrow F$.

They are widely used as e.g. drop safety device for fork lift trucks, safeguarding the lifting cylinder during lowering to prevent continued travel if the fork accidentally gets caught (accident protection) or preventing undesired oscillations by increasing the back pressure when used as sequence valve in reflow pipes.



Nomenclature:	Sequence valve
Design:	Screw-in valve Combination with housing for pipe connection
Adjustability:	Fixed (non-adjustable)
P_{max}:	300 bar
Q_{max}:	120 l/min
Δp_{max}:	15 bar

Basic type and size	Flow	Pre-load pressure	Symbol	
	Q_{max} (l/min)	Δp_{max} (bar) ¹⁾		
VR 1	15	3, 5, 7, 9, 12, 15		
VR 2	40	3, 5, 7, 9, 12, 15		
VR 3	65	3, 5, 7, 9, 12		
VR 4	120	3, 5, 7, 9, 12		

¹⁾ the selected pre-load pressure i.e. opening pressure cannot be altered

Order examples

VR 3 3 C

Sequence valve size 3, opening pressure 3 bar, screw-in valve (coding C)

VR 4 9 E

Sequence valve size 4, opening pressure 9 bar, version with housing (coding E)

VR 1 15 G

Sequence valve size 1, opening pressure 15 bar, version with housing (coding G)