

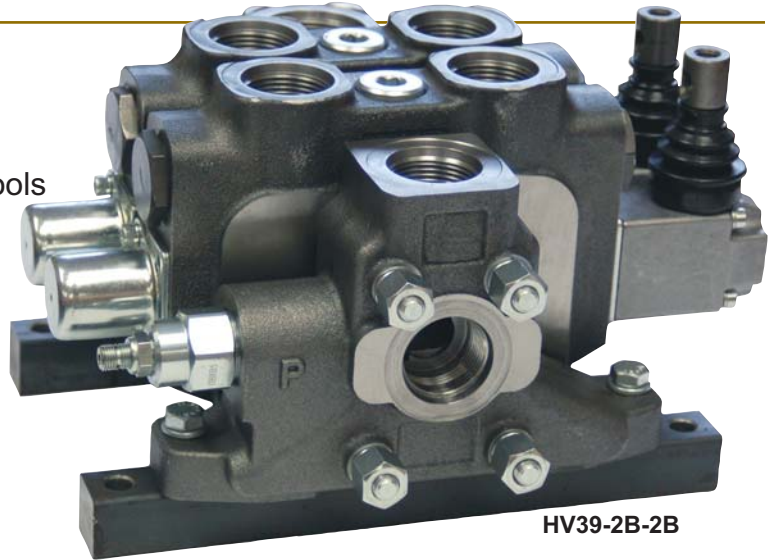
General Features

Standard Material Specifications

- High Strength Cast Iron
- Hard Chrome Plated Interchangeable Spools
- Steel Spring Caps
- Aluminum Lever Caps
- NBR Seals

Standard Features

- 1" 1 to 8 Spool Monoblock Valve
- Adjustable Relief Valve (500-5000 psi)
- Housed Knuckle Joints
- Parallel Circuit
- Double Action
- Load Hold Check Valve in Each Section



HV39 is the largest valve in the HV Series with capacity of 39.6 gpm (150 lpm) flow rate and available up to eight spools. The HV39 Series serves as an ideal control device for applications such as: wheel loaders, back hoes, garbage trucks, roll-off trucks, hydraulic presses, mining machinery etc.

General Specifications

Standard Working Conditions

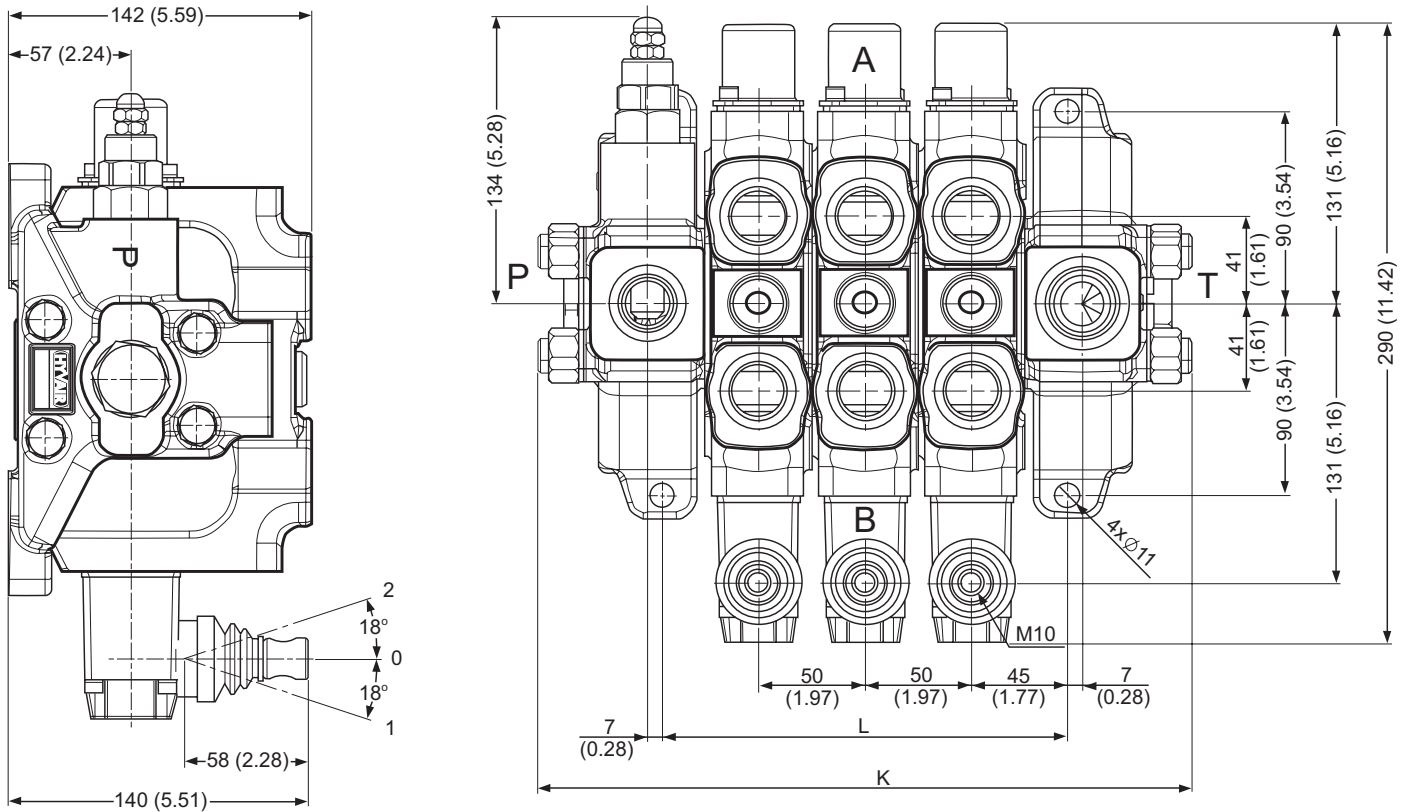
- Flow Rate.....39.6 gpm (150 lpm)
- Maximum Operating Pressure.....4640 psi (320 Bar)
- Maximum Back Pressure.....435 psi (30 Bar)
- Recommended Fluid Temperature Range.....-4° to 176°F (-20° to 80°C)
- Ambient Temperature Range.....-31° to 140°F (-35° to 60°C)
- Recommended Oil Viscosity Range.....10 cSt to 75 cSt
- Internal Leakage (at 1450 psi (100 Bar); 32 cSt, 104°F (40°C)).....4 to 9 cc/ min
- Recommended Oil Filtering..... β 10 > 75
- Tie Rod Tightening Torque.....30 Nm (265.5 in/ lbs)
- Maximum Contamination Level.....Class 9 (NAS 1638)
19/16 (ISO 4406)

Technical Specifications

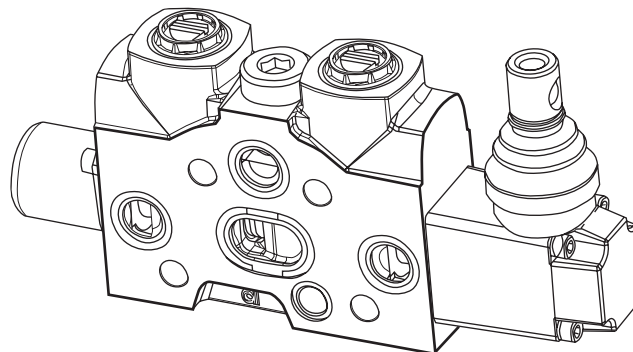
- Number of Spools.....1 - 8
- Weight.....Varies by number of spools selected (see following page)

Dimensional Data

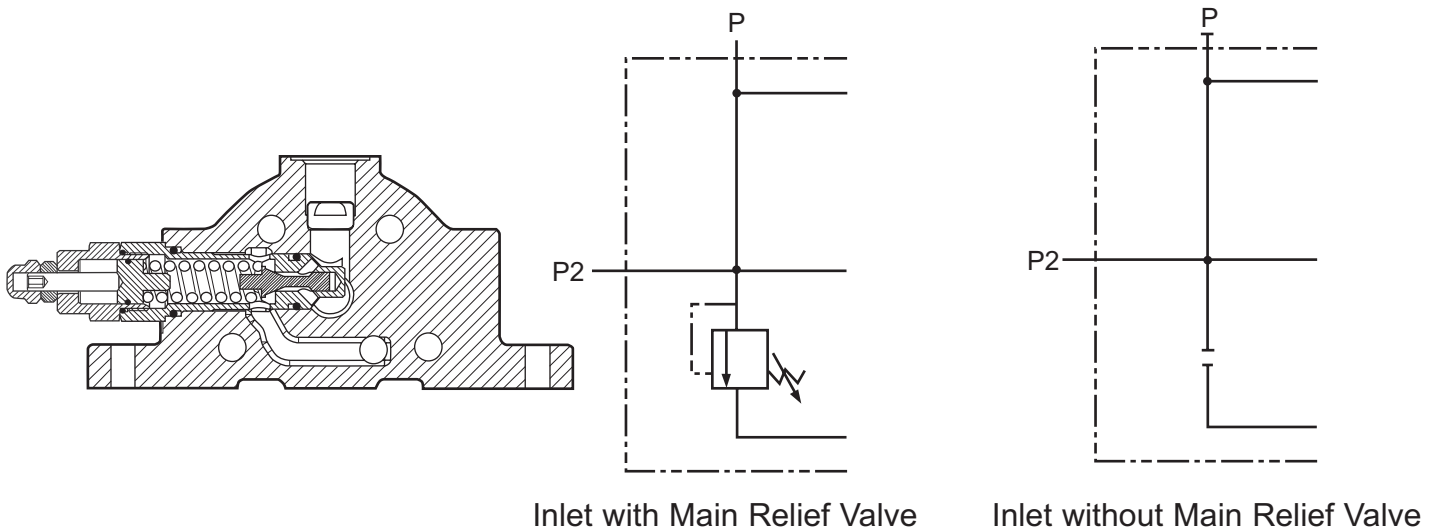
Units: mm (inches)



Type	L mm (inch)	K mm (inch)	Weight kg (lbs)
HV39 - 1	114 (4.49)	206 (8.11)	14.9 (32.8)
HV39 - 2	164 (6.46)	256 (10.08)	21.8 (48.0)
HV39 - 3	214 (8.43)	306 (12.05)	28.3 (62.3)
HV39 - 4	264 (10.39)	356 (14.02)	34.8 (76.6)
HV39 - 5	314 (12.36)	406 (15.98)	41.3 (90.9)
HV39 - 6	364 (14.33)	456 (17.95)	47.8 (105.2)
HV39 - 7	414 (16.30)	506 (19.92)	54.3 (119.5)
HV39 - 8	464 (18.27)	556 (21.89)	60.8 (133.8)



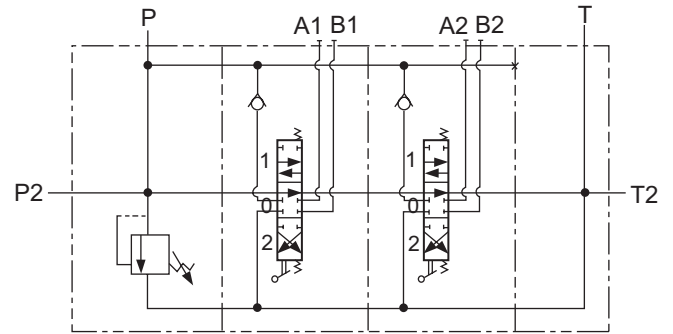
Main Relief Valve



Hydraulic Circuit

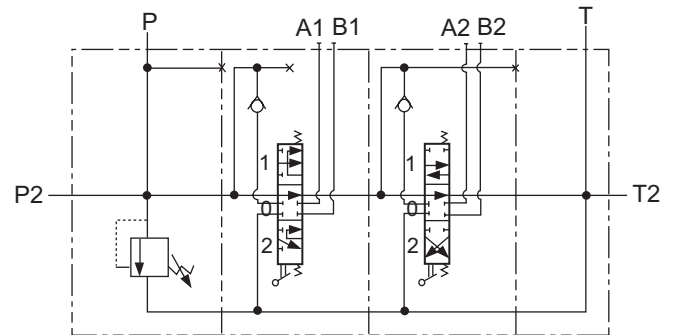
Parallel Circuit

When the spool is operated, it intercepts the switch gallery by diverting the flow of oil to service port A or B. If two or more spools are actuated at the same time, the oil will power the service port that has the lower load by selecting the path with the least resistance; by throttling the spools, the flow of oil can be divided between two or more service ports.

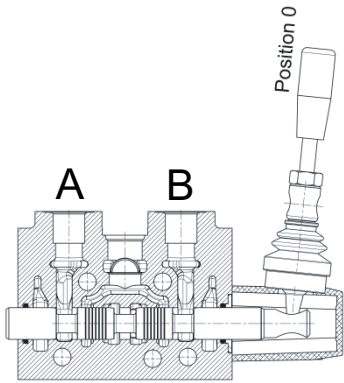


Series Circuit

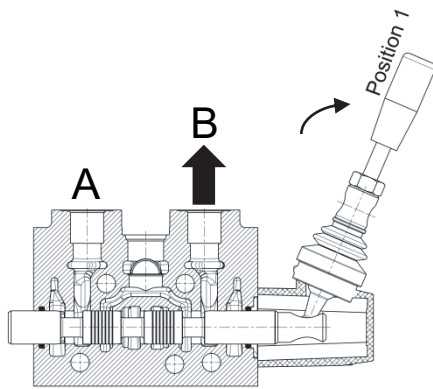
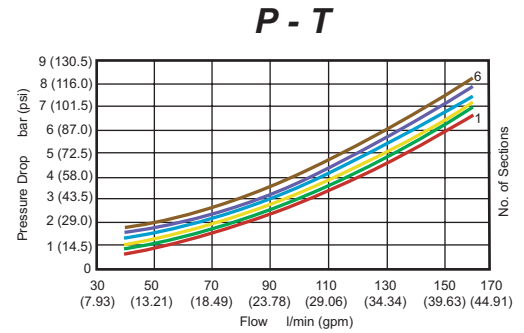
When the spool is operated, it intercepts the switch gallery by diverting the flow of oil to service port A or B. The oil that flows back from the actuator is carried to the switch gallery thus making it available to the service ports downstream from the series section. The pressure drop downstream is added to the pressure drop of the section itself.



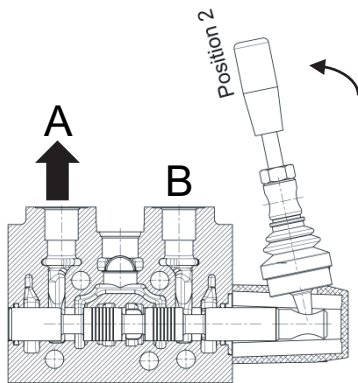
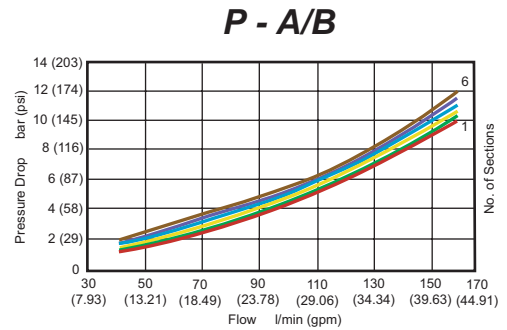
Spool Control Position/ Pressure Drop Curves



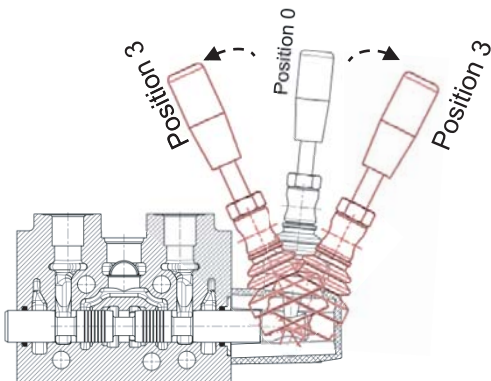
Spool-neutral position:
POSITION 0



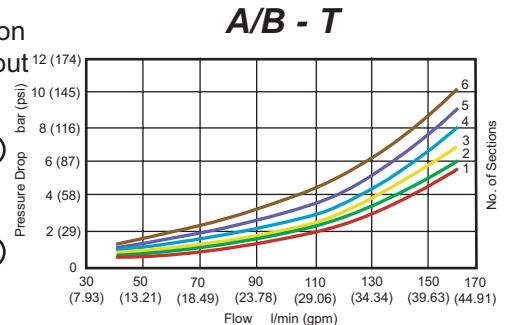
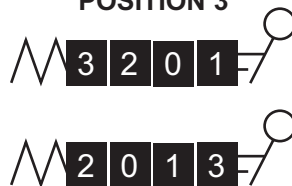
Spool-out position:
POSITION 1



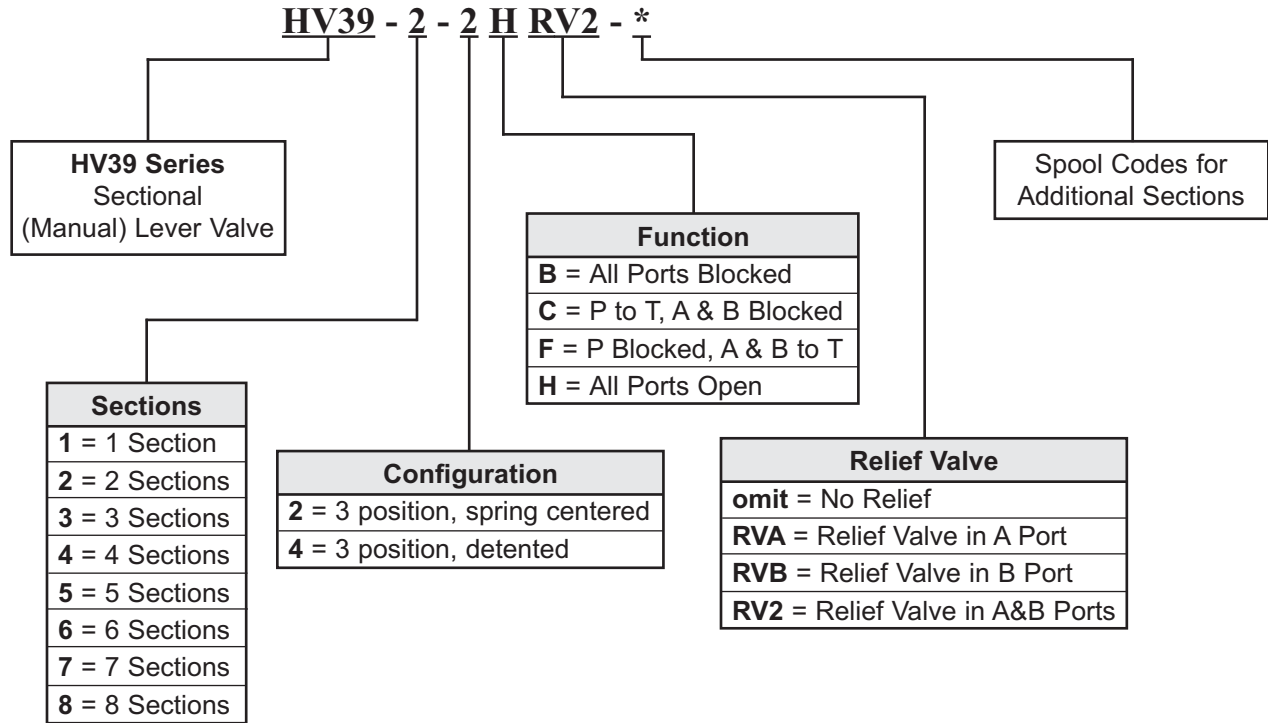
Spool-in position:
POSITION 2



4 positions and 4th position
can be spool-in or spool-out
position optionally:
POSITION 3



Ordering Information



Options
HVHANDLE = Handle
HV39-DK = Detent Kit
HV39-PB = Power Beyond Sleeve
HV39-CCP = Closed Center Plug
HV39-WP-DRV = Work Port Direct Acting Relief Valve
HV39-WP-ACV = Work Port Anti Cavitation Valve
HV39-INLET = Inlet
HV39-OUTLET = Outlet
HV39-IN-PLG = Inlet Relief Plug
HV39-IN-POR = Inlet Relief- Pilot Operated Relief
HV39-TC1, 2 & 3 = Tie Rod Kit (1-3 Spools)
HV39-TC4, 5 & 6 = Tie Rod Kit (4-6 Spools)
HV39-TC7 & 8 = Tie Rod Kit (7 & 8 Spools)



Units: mm (inches)

