

Flow divider valve

Capacity:
12 - 60 gpm (45 - 240 L/min.)

Functional Group:

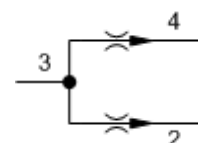
Products : Cartridges : Flow Divider : Divider : Divide Only

Model:

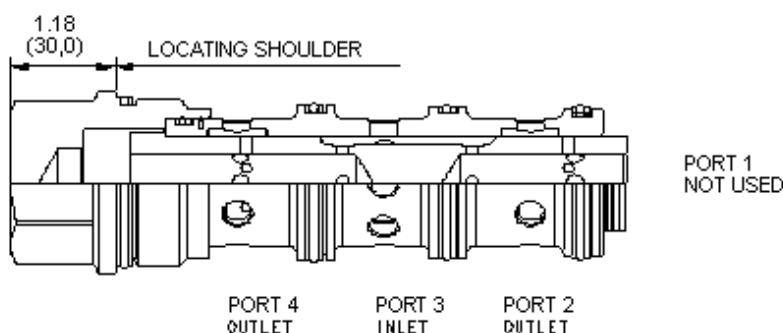
FSFD

Product Description

Flow dividers are sliding-spool, pressure-compensated devices used to split oil flow to two different branches of a circuit in a designated ratio. These valves are suitable for applications that use the following: unidirectional hydraulic motors, hydraulic cylinders where flow division in one direction only is required, and multiple circuits that are serviced from one pump supply.



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Technical Features

- All flow divider and divider/combiner cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size).
- Operating characteristics cause the leg of the circuit with the greatest load to receive the higher percentage of flow in dividing mode. If a rigid mechanism is used to tie actuators together, the lead actuator may pull the lagging actuator and cause it to cavitate.
- In applications involving rigid mechanisms between multiple actuators, operating inaccuracy will cause the eventual lock-up of the system. If the mechanical structure is not designed to allow for the operating inaccuracy inherent in the valve, damage may occur.
- In motor circuits, rigid frames or mechanisms that tie motors together, and/or complete mechanical synchronized motion of the output shaft of the motors, either by wheels to the pavement or sprockets to conveyors, will contribute to cavitation, lock-up and/or pressure intensification.
- Variations in speed and lock-up can be attributed to differences in motor displacement, motor leakage, wheel diameter variance and friction of wheels on the driving surface.
- This valve is a divider only; any attempt to flow backwards through the valve is not advised.
- Dividers with unequal ratios have the higher flow at port 4.
- Below the minimum flow rating there is not enough flow for the valve to modulate. It is effectively a tee. If flow starts at zero and rises, there will be no dividing control until the flow reaches the minimum rating.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

Technical Data

	U.S. Units	Metric Units
Cavity	T-34A	
Capacity	12 - 60 gpm	45 - 240 L/min.
Divisional Accuracy at Max Input Flow	±3.5%	
Divisional Accuracy at Minimum Input Flow	±6.5%	
Maximum Operating Pressure	5000 psi	350 bar
Pressure Drop at Maximum Rated Input Flow	250 psi	18 bar
Pressure Drop at Minimum Rated Input Flow	30 psi	2 bar
Rated Input Flow with 33/67 Split	9 - 45 gpm	36 - 180 L/min.
Rated Input Flow with 40/60 Split	10 - 50 gpm	38 - 200 L/min.
Rated Input Flow with 50/50 Split	12 - 60 gpm	45 - 240 L/min.
Series (from Cavity)	Series 4	
Valve Hex Size	1 5/8 in.	41,3 mm
Valve Installation Torque	350 - 375 lbf ft	475 - 500 Nm
Seal Kits - Cartridge	Buna: 990-034-007 Viton: 990-034-006	
Model Weight	2.86 lb.	1.30 kg.

Split	Input Flow		Rated Accuracy	Maximum Possible Flow Variations	
				High Flow Leg	Low Flow Leg
50:50	Max Rated	60 gpm	±3.5%	28 - 32 gpm	
		240 L/min		112 - 128 L/min	
	Min rated	12 gpm	±6.5%	5.2 - 6.8 gpm	
		45 L/min		19,6- 25,4 L/min	
40:60	Max Rated	50 gpm	±3.5%	28 - 32 gpm	18 - 22 gpm
		200 L/min		113 - 127 L/min	73 - 87 L/min
	Min rated	10 gpm	±6.5%	5.4 - 6.6 gpm	3.4 - 4.6 gpm
		38 L/min		20,3 - 25,3 L/min	12,7 - 17,7 L/min
33:67	Max Rated	45 gpm	±3.5%	28 - 32 gpm	13 - 17 gpm
		180 L/min		114 - 126 L/min	54 - 66 L/min
	Min rated	9 gpm	±6.5%	5.4 - 6.6 gpm	2.4 - 3.6 gpm
		36 L/min		22 - 26 L/min	10 - 14 L/min

The maximum variation is at 5000 psi (350 bar) differential between legs with the high pressure leg being the higher flow.

FSFD-XAN**Control****Standard Options****X** Not Adjustable**Flow Split****Standard Options**

A 50/50
B 40/60
C 33/67
D 25/75

Seal Material**Standard Options**

N Buna-N
V Viton