



Flow divider valve

Capacity:
1.5 - 8 gpm (6 - 30 L/min.)

Functional Group:

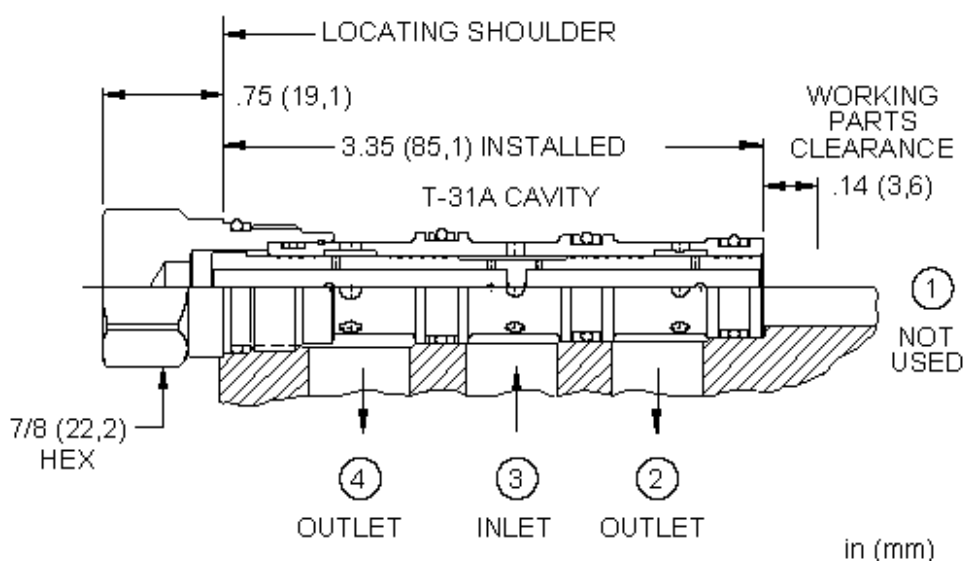
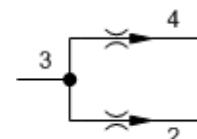
Products : Cartridges : Flow Divider : Divider : Divide Only

Model:

FSCD

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.



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		06.2011
	U.S. Units	Metric Units
Cavity	T-31A	
Capacity	1.5 - 8 gpm	6 - 30 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	1.2 - 6 gpm	4,5 - 22,7 L/min.
Rated Input Flow with 40/60 Split	1.4 - 7 gpm	5,3 - 26,5 L/min.
Rated Input Flow with 50/50 Split	1.5 - 8 gpm	6 - 30 L/min.
Series (from Cavity)	Series 1	
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Seal Kits - Cartridge	Buna: 990-031-007	
Seal Kits - Cartridge	Viton: 990-031-006	
Model Weight	0.34 lb.	0.15 kg.

Split	Input Flow		Rated Accuracy	Maximum Possible Flow Variations	
				High Flow Leg	Low Flow Leg
50:50	Max Rated	8 gpm	±3.5%	3.72 - 4.28 gpm	
		30 L/min		14,1 - 15,9 L/min	
	Min rated	1.5 gpm	±6.5%	.65 - .85 gpm	
		6 L/min		2,5 - 3,5 L/min	
40:60	Max Rated	7 gpm	±3.5%	4.0 - 4.4 gpm	2.6 - 3.0 gpm
		26,5 L/min		15,0 - 16,8 L/min	9,7 - 11,6 L/min
	Min rated	1.4 gpm	±6.5%	.81 - .87 gpm	.53 - .59 gpm
		5,3 /min		2,8 - 3,5 L/min	1,8 - 2,5 L/min
33:67	Max Rated	6 gpm	±3.5%	3.8 - 4.2 gpm	1.8 - 2.2 gpm
		22,7 L/min		14,4 - 16 L/min	6,7 - 8,3 L/min
	Min rated	1.2 gpm	±6.5%	.72 - .88 gpm	.32 - .50 gpm
		4,5 L/min		2,7 - 3,3 L/min	1,2 - 1,8 L/min

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

FSCD-XAN

Control

Flow Split

Material/Coating Modifier

Standard Options

Standard Options

Seal Material Standard Options

Preferred Options

X Not Adjustable

A 50/50
B 40/60
C 33/67

N Buna-N
V Viton

No modifier (standard material with no special coating)
Special Options

When the modifier is /AP, the control must be X

/AP Stainless Steel, Passivated

Control: X

Our corrosion resistant product line is growing! If you are interested in a corrosion resistant option for this model, please contact Sun.