Capacity:

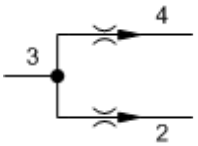
Flow divider valve

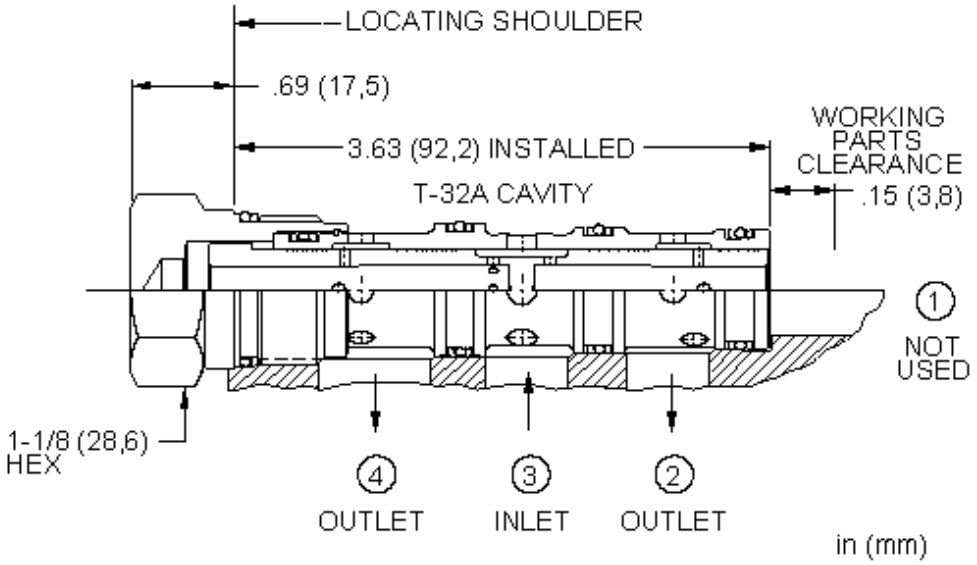
Model:
FSDD
3 - 15 gpm (12 - 60 L/min)

Functional Group:
Products : Cartridges : Flow Divider : Divider : Divide Only

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 through the 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 valve is not advised.
- 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-32A	
Capacity	3 - 15 gpm	12 - 60 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	2.2 - 11 gpm	8,4 - 42 L/min.
Rated Input Flow with 40/60 Split	2.5 - 12.5 gpm	9,4 - 47 L/min.
Rated Input Flow with 50/50 Split	3 - 15 gpm	12 - 60 L/min.
Series (from Cavity)	Series 2	
Valve Hex Size	1 1/8 in.	28,6 mm
Valve Installation Torque	45 - 50 lbf ft	60 - 70 Nm
Seal Kits - Cartridge	Buna: 990-032-007	
Seal Kits - Cartridge	Viton: 990-032-006	
Model Weight	0.57 lb.	0.26 kg.

Split	Input Flow		Rated Accuracy	Maximum Possible Flow Variations	
				High Flow Leg	Low Flow Leg
50:50	Max Rated	15 gpm	±3.5%	6.98 - 8.02 gpm	
		60 L/min		28 - 32 L/min	
	Min rated	3 gpm	±6.5%	1.30 - 1.70 gpm	
		12 L/min		5,2 - 6,7 L/min	
40:60	Max Rated	12.5 gpm	±3.5%	7.1 - 7.9 gpm	4.6 - 5.4 gpm
		47 L/min		26,6 - 29,8 L/min	17,2 - 20,4 L/min
	Min rated	2.5 gpm	±6.5%	1.34 - 1.66 gpm	.84 - 1.16 gpm
		9,4 L/min		5,0 - 6,2 L/min	3,2 - 4,4 L/min
33:67	Max Rated	11 gpm	±3.5%	7.0 - 7.8 gpm	3.2 - 4.0 gpm
		42 L/min		26,5 - 29,5 L/min	12,5 - 15,5 L/min
	Min rated	2.2 gpm	±6.5%	1.3 - 1.6 gpm	.6 - .9 gpm
		8,4 L/min		5,1 - 6,2 L/min	2,2 - 3,3 L/min

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

FSDD-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