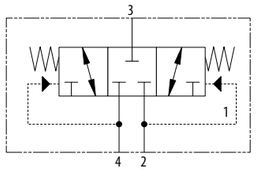
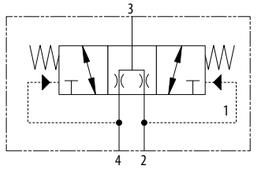
DSV4-10 - Shuttle valve

Spring centered, open or closed center spool type shuttle valve
26 L/min (6.9 USgpm) • 350 bar (5000 psi)





Operation

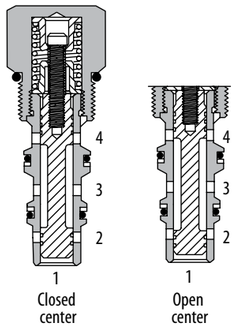
When the spring bias is overcome at port 2, the flow is directed from port 4 to port 3 while closing port 2.

When the spring bias is overcome at port 4, the flow is directed form port 2 to port 3 while closing port 4. This valve is available in both a closed and open center spool configuration.

Features

Hardened, ground and honed working parts to limit leakage and prolong life. The valve should be fitted into a blind C-10-4 cavity or a standard body with port 1 plugged. Several switching pressures available. Compact design with a low Pressure drop.

Sectional view



Performance data

Ratings and specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)	
Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	26 L/min (6.9 USgpm)
Internal leakage	164 cc/min (10 in^3/min) maximum @ 210 bar (3000 psi)
Pilot pressures	40 - 2,75 bar (40 psi) 80 - 5,5 bar (80 psi) 160 - 11,0 bar (160 psi)
Pilot displacement volume	0,49 cm^3 (0.02 in^3)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/**16/13**
Standard housing materials	Aluminum or steel
Weight cartridge only	0,14 kg (0.32 lbs)
Seal kit	889597 (Buna-N), 02-172397 (Viton®)

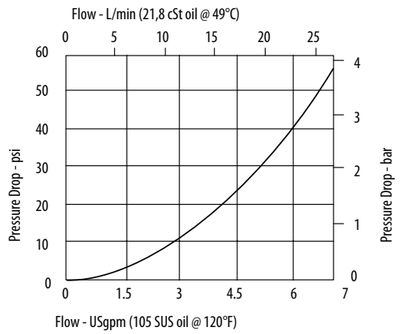
Viton is a registered trademark of E.I. DuPont.

Description

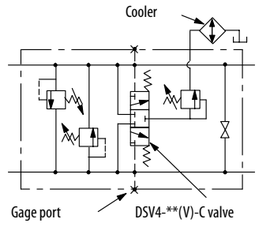
This is a 3-way 3-position, Spring centered, open or closed center spool type hot oil shuttle valve for transmission applications. This is usually built into manifolds containing other transmission components such as cross line relief valves and purge reliefs.

Pressure drop curves

Cartridge only



Typical application



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

DSV4-10 - Shuttle valve

Spring centered, open or closed center spool type shuttle valve
26 L/min (6.9 USgpm) • 350 bar (5000 psi)

Model code

DSV4 –10 (V) – * – 0 – * – 00**
1 2 3 4 5 6 7

1 Function
DSV4 - Directional shuttle valve

2 Size
10 - 10 size

3 Seal material
Blank - Buna-N
V - Viton®

4 Spool configuration
C - Normally closed
O - Open center

5 Port size
0 - Cartridge only (Not available with standard housing)

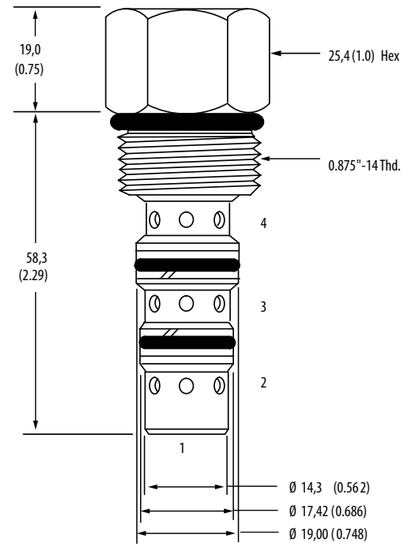
6 Pilot to shift (nominal)
Note: Code based on pressure in psi.
40 - 2,75 bar (40 psi)
80 - 5,5 bar (80 psi)
160 -11,0 bar (160 psi)

7 Special features
00 - None
(Only required if valve has special features, omitted if "00.")

Dimensions
mm (inch)

Torque cartridge in housing
A - 47-54 Nm (35-40 ft. lbs)
S - 68-75 Nm (50-55 ft. lbs)

Cartridge only



⚠ Warning

Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).

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