

3-way, pilot operated, directional valve with drain to port 4 (1 blocked, 2 to 3 open)

Functional Group:

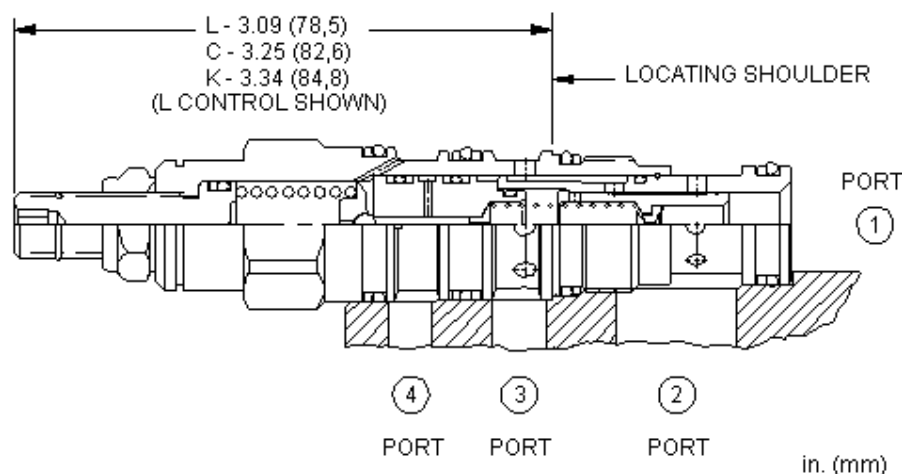
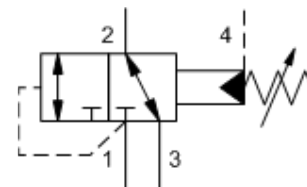
Products : Cartridges : Directional; DP**, DR**, DV** : 3 Way - 4 Port - 1 Blocked, 2 to 3 Open : Pilot Operated

Capacity:
7 gpm (28 L/min.)

Model:
DPBO

Product Description

Pilot-operated, 3-way directional cartridges (1 blocked, 2 to 3 open) are switching devices typically used in moderate flow circuits. They can be used by themselves or to actuate larger pilot operated directional cartridges or logic cartridges. The valve shifts when the pressure differential between port 1 and port 4 exceeds the setting.

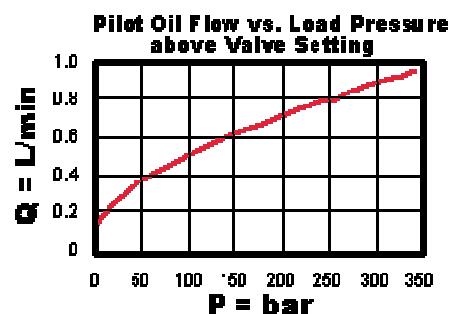
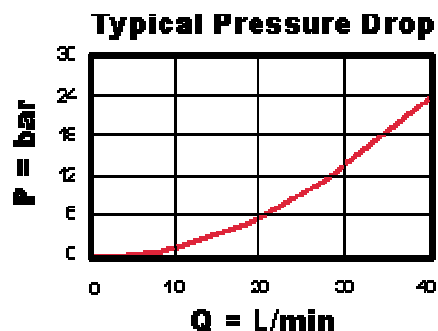
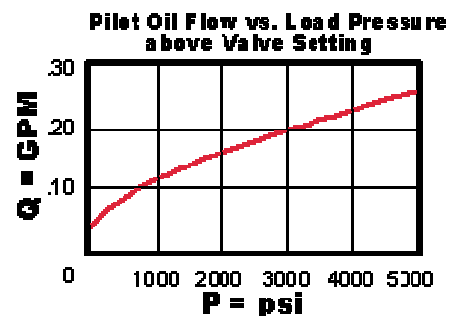
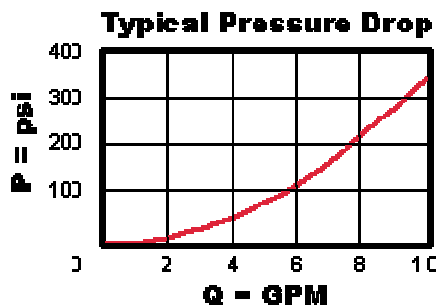


Technical Features

- Port 4 can be blocked to prevent the valve from shifting.
- Port 3 can be used as a work port.
- Direct-acting and pilot-operated versions of these valves are interchangeable. They fit the same cavities and have the same flow paths.
- Pressure at port 4 is directly additive to the setting of the valve.
- This valve is not bistable; it is capable of modulating between the two positions shown.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar). This is due to fatigue strength limits not hydraulic operating limits.
- When pilot pressure exceeds the valve setting, pilot flow may be a consideration. See performance curves for pilot consumption vs. load pressure above the valve setting. If this is a problem, the direct acting version of this valve would be a solution.
- 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-21A	
Capacity	7 gpm	28 L/min.
Control Pilot Flow	7 - 10 in ³ /min.	0,11 - 0,16 L/min.
Factory Pressure Settings Established at	4 gpm	15 L/min.
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	1 in ³ /min.@1000 psi	15 cc/min.@70 bar
Series (from Cavity)	Series 1	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Adjustment Screw Internal Hex Size	5/32 in.	4 mm
Adjustment Locknut/Cap Hex Size	9/16 in.	15 mm
Adjustment Nut Torque	80 - 90 lbf in.	9 - 10 Nm
Seal Kits - Cartridge	Buna: 990-021-007	
Seal Kits - Cartridge	Viton: 990-021-006	
Model Weight	0.41 lb.	0.19 kg.



DPBO-LAN

Control

Standard Options

- C*** Tamper Resistant - Factory Set
- K** Handknob
- L** Standard Screw Adjustment

Adjustment Range

Standard Options

- A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting
- B** 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting
- D** 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting
- E** 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting
- J** 25 - 1500 psi (1,7 - 105 bar), 1000 psi (70 bar) Standard Setting
- W** 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting

Seal Material

Standard Options

- N** Buna-N
- V** Viton

* Special Setting required, specify at time of order
Customer specified setting stamped on hex.