

## 2-way, pilot operated, directional valve with internal drain to port 3 - normally closed

Functional Group:

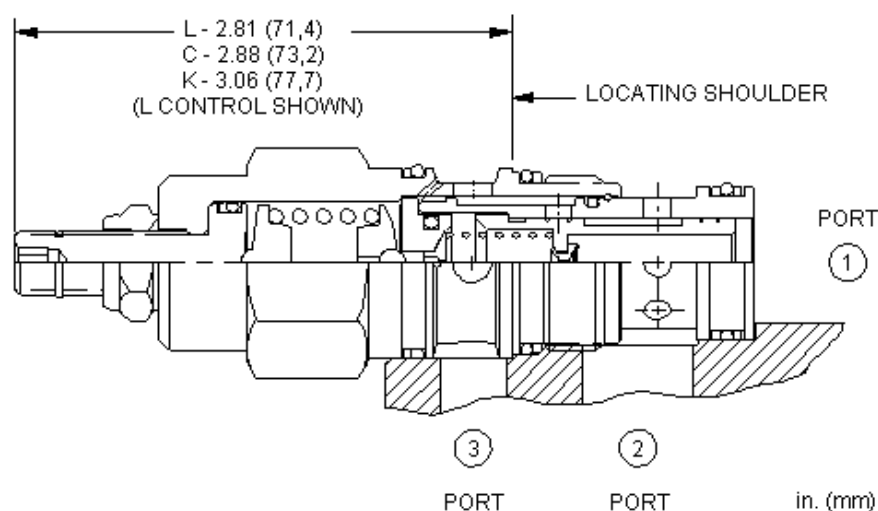
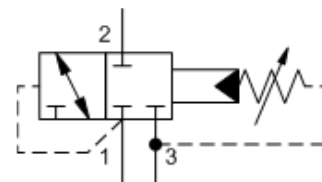
**Products : Cartridges : Directional; DP\*\*, DR\*\*, DV\*\* : 2 Way - 3 Port - Normally Closed : Pilot Operated**

Capacity:  
**15 gpm (60 L/min.)**

Model:  
**DPCB**

### Product Description

Normally closed, pilot-operated, 2-way directional cartridges 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 3 exceeds the setting.

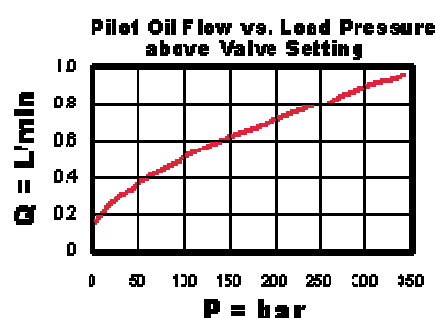
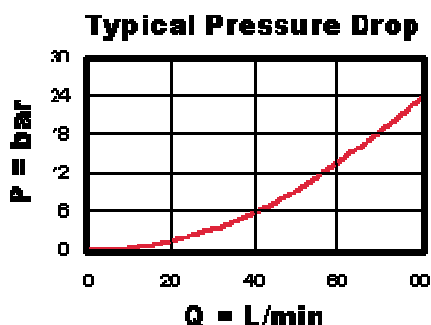
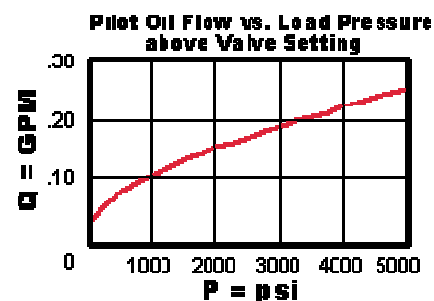
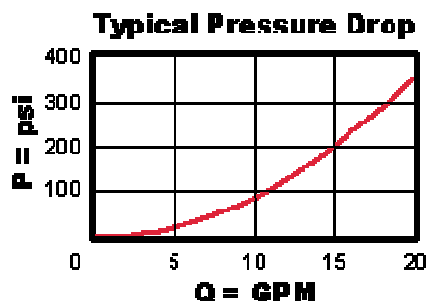


### Technical Features

- Pressure at port 3 is directly additive to the setting of the valve. Because of this, port 3 may not be useable as a work port in your circuit. If this is a consideration, the 4 port version of this valve may be a solution.
- Direct-acting and pilot-operated versions of these valves are interchangeable. They fit the same cavities and have the same flow paths.
- 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-2A                             |                    |
| Capacity                                                   | 15 gpm                           | 60 L/min.          |
| Control Pilot Flow                                         | 10 - 15 in <sup>3</sup> /min.    | 0,16 - 0,25 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 <sup>3</sup> /min.@1000 psi | 15 cc/min.@70 bar  |
| Series (from Cavity)                                       | Series 2                         |                    |
| Adjustment - Number of Clockwise Turns to Increase Setting | 5                                |                    |
| Valve Hex Size                                             | 1 1/8 in.                        | 28,6 mm            |
| Valve Installation Torque                                  | 45 - 50 lbf ft                   | 60 - 70 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: 990-202-007                |                    |
| Seal Kits - Cartridge                                      | Viton: 990-202-006               |                    |
| Model Weight                                               | 0.60 lb.                         | 0.27 kg.           |



## DPCB-LAN

| Control                                  | Adjustment Range                                                             | Seal Material           | Material/Coating Modifier                                                                                                                         |
|------------------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Options</b>                  | <b>Standard Options</b>                                                      | <b>Standard Options</b> | <b>Preferred Options</b>                                                                                                                          |
| <b>C*</b> Tamper Resistant - Factory Set | <b>A</b> 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting    | <b>N</b> Buna-N         | <b>No modifier</b> (standard material with no special coating)                                                                                    |
| <b>K</b> Handknob                        | <b>B</b> 50 - 1500 psi (3,5 - 105 bar), 1000 psi (70 bar) Standard Setting   | <b>V</b> Viton          | <b>Special Options</b>                                                                                                                            |
| <b>L</b> Standard Screw Adjustment       | <b>D</b> 25 - 800 psi (1,7 - 55 bar), 400 psi (28 bar) Standard Setting      |                         | <b>/AP</b> Stainless Steel, Passivated                                                                                                            |
|                                          | <b>E</b> 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting      |                         | Control: C                                                                                                                                        |
|                                          | <b>W</b> 150 - 4500 psi (10,5 - 315 bar), 1000 psi (70 bar) Standard Setting |                         | Control: L                                                                                                                                        |
| <b>Additional Options</b>                |                                                                              |                         | <b>Our corrosion resistant product line is growing! If you are interested in a corrosion resistant option for this model, please contact Sun.</b> |
| Control                                  | Adjustment Range                                                             | Seal Material           |                                                                                                                                                   |
| <b>O</b> Handknob with Panel Mount       | <b>C</b> 150 - 6000 psi (10,5 - 420 bar), 1000 psi (70 bar) Standard Setting |                         |                                                                                                                                                   |
|                                          | <b>H</b> 30 - 3000 psi (2 - 210 bar), 1000 psi (70 bar) Standard Setting     |                         |                                                                                                                                                   |

When the modifier is /AP, the control must be C or L

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