

## Normally open, balanced poppet, logic element - vent-to-close

Capacity:  
**30 gpm (120 L/min.)**

Functional Group:

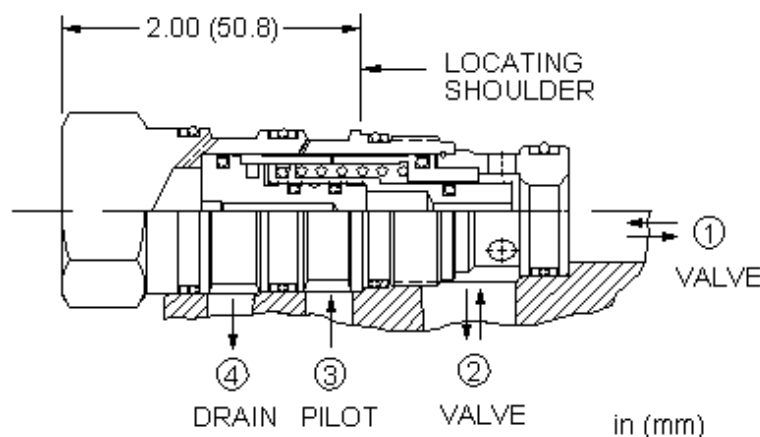
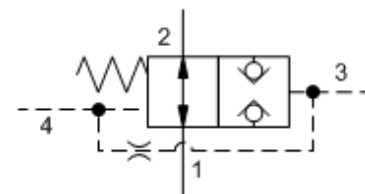
**Products : Cartridges : Logic Element : Balanced Poppet : Normally Open, Vent to Operate**

Model:

**DOFR**

### Product Description

This is a normally open, balanced poppet, switching element. When the vent port (port 4) is blocked, the poppet remains in the open position. Venting port 4 shifts it to the closed position, provided there is sufficient pressure at port 3.

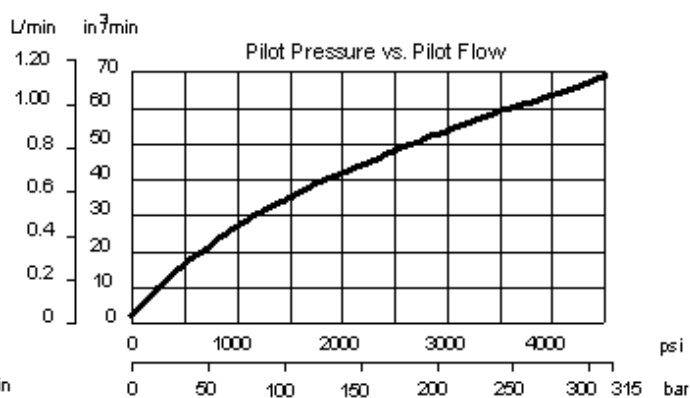
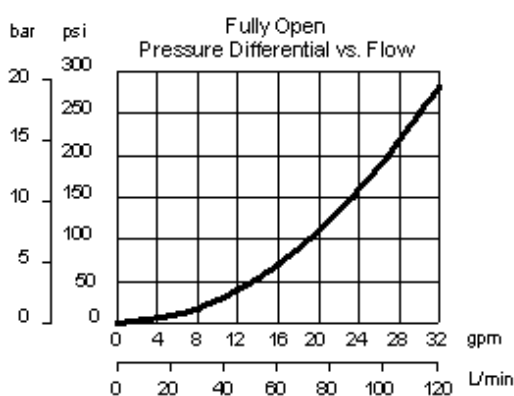


### Technical Features

- Unique balanced construction provides predictable switching with 5000 psi (350 bar) at both ports 1 and 2, with the vent (port 4) open and a minimum pilot pressure of 400 psi (30 bar) at port 3.
- Valve will open when the pilot pressure falls below 145 psi (10 bar).
- These valves are hydraulically balanced between port 1 and port 2.
- Port 1 and port 2 are fully sealed from port 3 and port 4. Ports 3 and 4 are positively sealed.
- Leakage rate between port 1 and port 2 is very low, typically less than 10 drops/min. at 5000 psi (0,7 cc/min at 350 bar).
- Port 4 may be externally connected to a pilot switching valve. The pilot valve should have a leakage rate of less than 10 drops/min. and be able to satisfy the pilot flow requirements. Sun model DAA\*-\*\*\* solenoid pilot valve is ideal for this application.
- All ports will accept 5000 psi (350 bar).
- 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-22A                         |                     |
| Capacity                                       | 30 gpm                        | 120 L/min.          |
| Minimum Pilot Pressure Required to Shift Valve | 300 psi                       | 20 bar              |
| Control Pilot Flow                             | 15 - 20 in <sup>3</sup> /min. | 0,25 - 0,33 L/min.  |
| Maximum Operating Pressure                     | 5000 psi                      | 350 bar             |
| Maximum Valve Leakage at 110 SUS (24 cSt)      | 10 drops/min.@5000 psi        | 0,7 cc/min.@350 bar |
| 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: 990-022-007             |                     |
| Seal Kits - Cartridge                          | Viton: 990-022-006            |                     |
| Model Weight                                   | 0.63 lb.                      | 0.29 kg.            |

**DOFR-XHN****Control****Standard Options****X** Vent to Operate**Minimum Pilot Pressure****Standard Options****H** 200 psi (14 bar)**Seal Material****Standard Options**

**N** Buna-N

**V** Viton

**Related Models**[DOFR8](#)