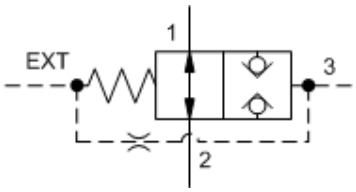
MODEL
# DOFD

Normally open, balanced poppet, logic element - vent-to-close
**SERIES 2 / CAPACITY: 30 gpm / CAVITY: T-2A**

sunhydraulics.com/model/DOFD




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

## CONFIGURATION

| | | |
|---|---|---|
| **E** | Control | External 4-SAE Drain Port |
| **H** | Minimum Pilot Pressure | 300 psi (20 bar) |
| **N** | Seal Material | Buna-N |

## TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

| | |
|---|---|
| Cavity | T-2A |
| Series | 2 |
| Capacity | 30 gpm |
| Maximum Operating Pressure | 5000 psi |
| Minimum Pilot Pressure Required to Shift Valve | 300 psi |
| Control Pilot Flow | See Performance Data |
| Maximum Valve Leakage at 110 SUS (24 cSt) | 10 drops/min.@5000 psi |
| Pilot Volume Displacement | .02 $in^3$ |
| Valve Hex Size | 1 1/8 in. |
| Valve Installation Torque | 45 - 50 lbf ft |
| Seal kit - Cartridge | Buna: 990202007 |
| Seal kit - Cartridge | Polyurethane: 990002002 |
| Seal kit - Cartridge | Viton: 990202006 |
| Model Weight | 0.60 lb. |

## CONFIGURATION OPTIONS

**Model Code Example: DOFDArray**

| CONTROL (E) | MINIMUM PILOT PRESSURE (H) | SEAL MATERIAL (N) |
|---|---|---|
| **E** External 4-SAE Drain Port | **H** 300 psi (20 bar) | **N** Buna-N |
| | | **V** Viton |

## TECHNICAL FEATURES

- Unique balanced construction provides predictable switching with 5000 psi (350 bar) at port 1 and port 2, with the external drain port open and a minimum pilot pressure of 300 psi (20 bar).
- The external -4 SAE vent port may be directly connected to a pilot switching valve. The pilot valve should have a leakage rate of less than 10 drops/min (0,7 cc/min). and be able to satisfy the pilot flow requirements. Sun model DAA*-*** solenoid pilot valve is ideal for this application.
- These valves are hydraulically balanced between port 1 and port 2.
- 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).
- Valve will open when the pilot pressure falls below 145 psi (10 bar).
- Port 1 and port 2 are fully sealed from port 3.
- 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.

## PERFORMANCE CURVES

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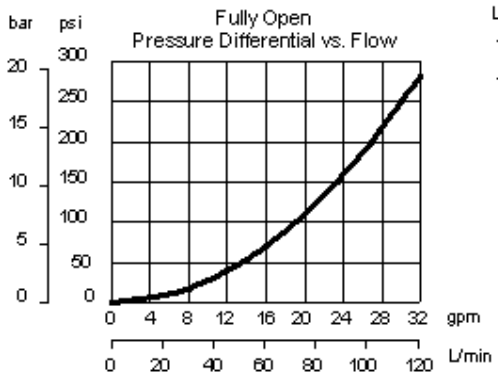


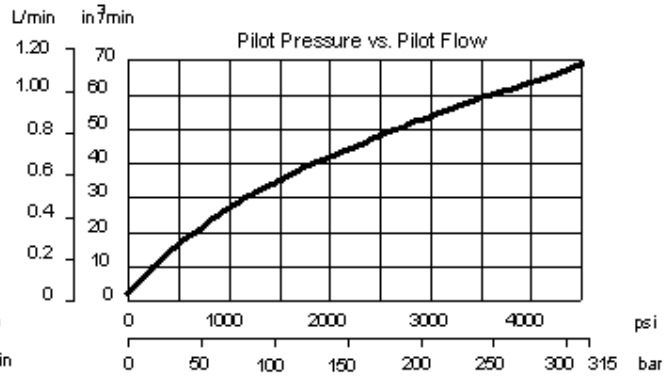


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