

## Normally open, balanced poppet, logic element with integral T-8A control cavity - vent-to-close

Capacity:  
**120 gpm (480 L/min.)**

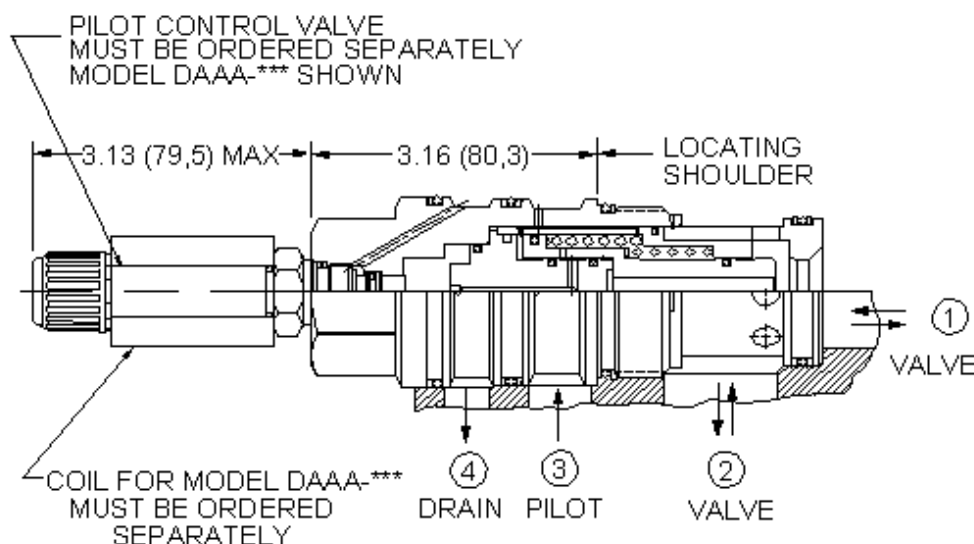
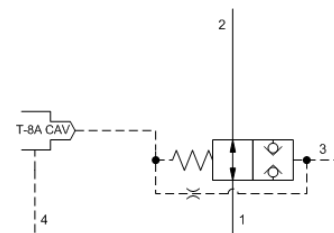
Functional Group:

**Products : Cartridges : Logic Element : Balanced Poppet : Normally Open, Vent to Operate, with Integral Pilot Control Cavity**

Model:  
**DOJR8**

### Product Description

This is a normally open, balanced poppet, switching element with an integral T-8A control cavity. With a 2-way valve in the closed position installed in the T-8A control cavity, the poppet remains open. Opening the 2-way valve shifts the poppet to the closed position, provided there is sufficient pressure at port 3.

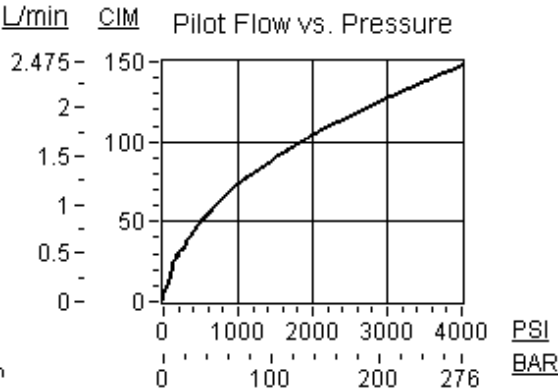
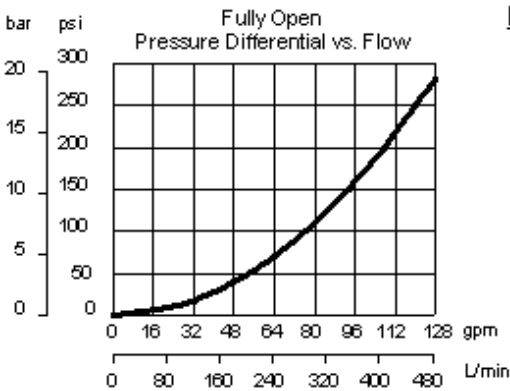


### Technical Features

- Unique balanced construction provides predictable switching with 5000 psi (350 bar) at port 1 and port 2. Switching will only occur when both a minimum pilot pressure of 400 psi (30 bar) is present and pilot control valve is open.
- 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.
- Any backpressure at the drain port is directly additive to the required pilot pressure for reliable operation.
- 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).
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the logic cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include electro-proportional, solenoid, air pilot, and hydraulic pilot operation. See Pilot Control Cartridges.
- 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-24A                  |                     |
| Capacity                                       | 120 gpm                | 480 L/min.          |
| Minimum Pilot Pressure Required to Shift Valve | 300 psi                | 20 bar              |
| Control Pilot Flow                             | 15 - 30 in³/min.       | 0,25 - 0,50 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 |
| Pilot Control Cavity                           | T-8A                   |                     |
| Pilot Control Valve Hex Size                   | 7/8 in.                | 22,2 mm             |
| Pilot Control Valve Installation Torque        | 20 - 25 lbf ft         | 27 - 33 Nm          |
| Series (from Cavity)                           | Series 4               |                     |
| Valve Hex Size                                 | 1 5/8 in.              | 41,3 mm             |
| Valve Installation Torque                      | 350 - 375 lbf ft       | 475 - 500 Nm        |
| Seal Kits - Cartridge                          | Buna: 990-024-007      |                     |
| Seal Kits - Cartridge                          | Viton: 990-024-006     |                     |
| Model Weight                                   | 3.30 lb.               | 1.50 kg.            |



DOJR-8HN

Minimum Pilot Pressure

Standard Options

H    200 psi (14 bar)

Seal Material

Standard Options

N    Buna-N  
V    Viton

Related Models

[DOJR](#)

Related Documents:

- [The T-8A Cavity Concept](#)