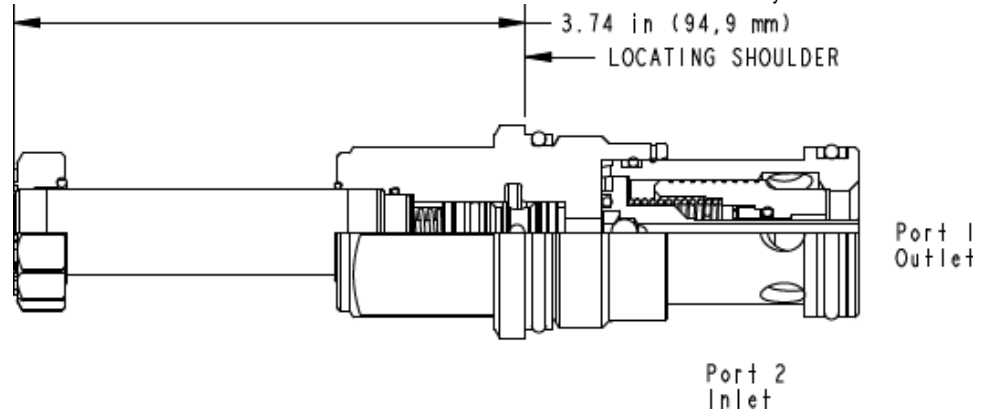


X-Control, C-Poppet


**CONFIGURATION**

|               |                      |                    |
|---------------|----------------------|--------------------|
| <b>X</b>      | Control              | No Manual Override |
| <b>C</b>      | Poppet Configuration | Normally Closed    |
| <b>N</b>      | Seal Material        | Buna-N             |
| <b>(none)</b> | Coil                 | No coil            |

This solenoid controlled, 2-way, 2-position cartridge is a pilot-operated, poppet style directional valve with reverse free flow check. It is available in either a normally open or normally closed configuration. Due to its poppet style construction, it has extremely low leakage.

This valve is designed to be used with 740 and 747 Series coils.

**TECHNICAL DATA**

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

|   |                       |
|---|-----------------------|
| Cavity                                    | T-16A                 |
| Series                                    | 3                     |
| Capacity                                  | 240 L/min.            |
| Maximum Operating Pressure                | 350 bar               |
| Maximum Valve Leakage at 110 SUS (24 cSt) | 0,7 cc/min.@350 bar   |
| Check Cracking Pressure                   | 3,5 bar               |
| Response Time - Typical                   | 30 ms                 |
| Switching Frequency                       | 15,000 max. cycles/hr |
| Solenoid Tube Diameter                    | 16 mm                 |
| Valve Hex Size                            | 31,8 mm               |
| Valve Installation Torque                 | 203 - 217 Nm          |
| Seal kit - Cartridge                      | Buna: 990016007       |
| Seal kit - Cartridge                      | EPDM: 990016014       |
| Seal kit - Cartridge                      | Viton: 990016006      |
| Model Weight                              | 0.65 kg.              |

**NOTES**

- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
- An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

**CONFIGURATION OPTIONS**
**Model Code Example: DFEJXCN**

| <b>CONTROL</b>                               | <b>(X) POPPET CONFIGURATION</b> | <b>(C) SEAL MATERIAL</b> | <b>(N) COIL *</b>                       |
|--|---------------------------------|--------------------------|---|
| <b>X</b> No Manual Override                  | <b>C</b> Normally Closed        | <b>N</b> Buna-N          | No coil                                 |
| <b>D</b> Twist/Lock (Dual) Manual Override   | <b>H</b> Normally Open          | <b>E</b> EPDM            | * Additional coil options are available |
| <b>L</b> Twist/Lock (Detent) Manual Override |                                 | <b>V</b> Viton           |   |
| <b>M</b> Manual Override (Standard)          |                                 |                          |   |
| <b>T</b> Twist (Momentary) Manual Override   |                                 |                          |   |

## TECHNICAL FEATURES

- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- All configurations of this valve include zinc-nickel plating as standard for 1000-hour salt fog protection.
- Coil connector options offer ratings up to IP69K. See individual coil product pages for details.
- This cartridge has an option for manual override. See the CONFIGURATION section.
- Valves exhibit extremely low leakage rates; less than 10 drops/min. @ 5000 psi (0,7 cc/min @ 350 bar).
- On models equipped with the D or L control, the detent mechanism in the manual override is meant for temporary actuation. The D, L and T manual control assemblies have a mechanical life expectancy of approximately 7,000 cycles.
- This valve utilizes a wet armature design. This means that the working fluid surrounds the armature and is exposed to the heat generated by the coil. This can be a factor if the coil is energized for long periods of time. Some fluids, notably water/glycol mixtures, break down at these temperatures over time and form varnishes that will affect the function of the cartridge.
- A wide variety of coil termination and voltage options are available, with and without surge protection. See the CONFIGURATION section.
- The solenoid's unique magnetic design results in a high efficiency solenoid, yielding high spool actuating force per Watt expended, leading to reliable valve shifting.
- Coils can be mounted on the tube in either direction.
- 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

### DFEJ

