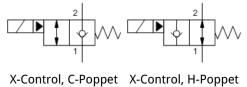


# MODEL DFDI

2-way, 2-stage, solenoid-operated directional poppet valve - flow 2-1 (740 Series)

SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-5A

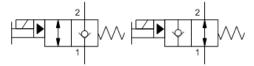




D-Control, C-Poppet D-Control, H-Poppet



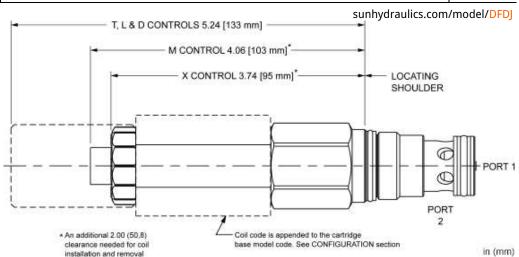
L-Control, C-Poppet L-Control, H-Poppet



M-Control, C-Poppet M-Control, H-Poppet



T-Control, C-Poppet T-Control, H-Poppet



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-5A		
Series	2		
Capacity	120 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	28,6 mm		
Valve Installation Torque	61 - 68 Nm		
Seal kit - Cartridge	Buna: 990203007		
Seal kit - Cartridge	EPDM: 990203014		
Seal kit - Cartridge	Viton: 990203006		
Model Weight	0.39 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.

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#### CONFIGURATION OPTIONS

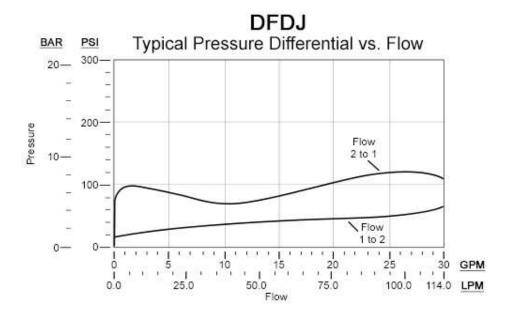
## Model Code Example: DFDJXCN

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



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