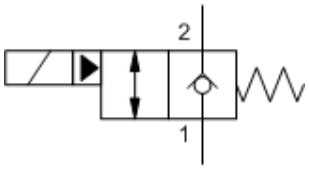
MODEL
DFDI

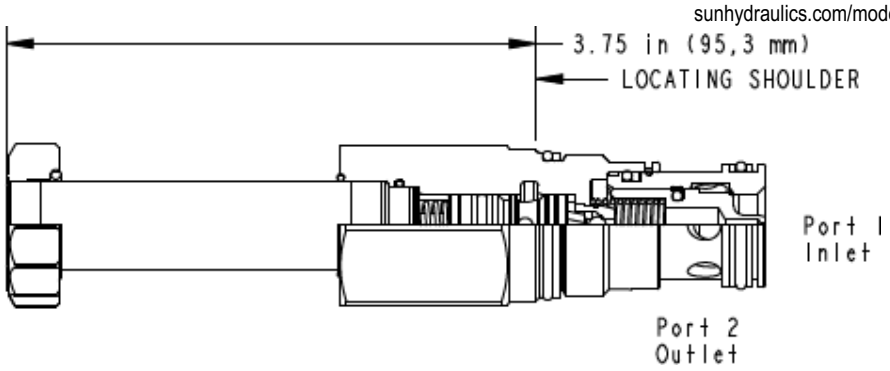
2-way, 2-stage, solenoid-operated directional poppet valve - flow 1-2 (740 Series)

SERIES 2 / CAPACITY: 30 gpm / CAVITY: T-5A

sunhydraulics.com/model/DFDI



X-Control, C-Poppet



CONFIGURATION

X	Control	No Manual Override
C	Spool Configuration	Normally Closed
N	Seal Material	Buna-N
(none)	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-5A
Series	2
Capacity	30 gpm
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	10 drops/min.@5000 psi
Check Cracking Pressure	50 psi
Response Time - Typical	30 ms
Switching Frequency	15,000 max. cycles/hr
Solenoid Tube Diameter	.63 in.
Valve Hex Size	1 1/8 in.
Valve Installation Torque	45 - 50 lbf ft
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	EPDM: 990203014
Seal kit - Cartridge	Viton: 990203006
Model Weight	0.86 lb.

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: DFDIXCN

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 Override	**H** Normally Open	**E** EPDM	
L Twist/Lock (Detent) Manual Override		**V** Viton	
M Manual Override			
T Twist (Momentary) Manual Override			

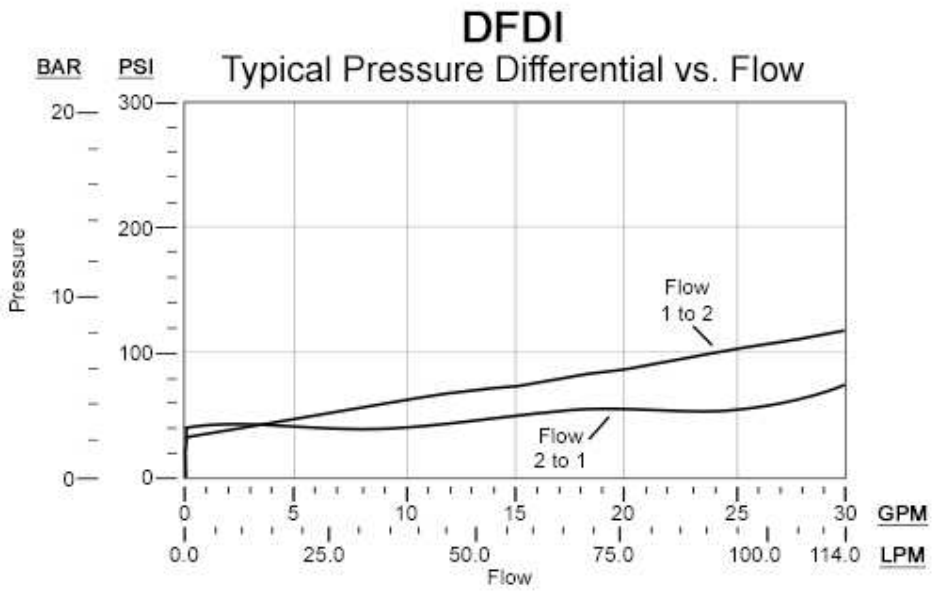
* Additional coil options are available

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TECHNICAL FEATURES

- Valves exhibit extremely low leakage rates; less than 10 drops/min. @ 5000 psi (0,7 cc/min @ 350 bar).
- 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.
- The valve assembly is fatigue rated for 5000-psi (350-bar) service.
- 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.
- 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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