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

SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-18A





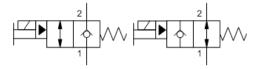
X-Control, C-Poppet X-Control, H-Poppet



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



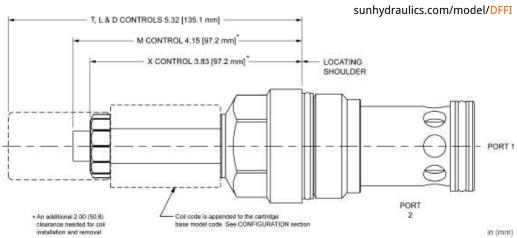
L-Control, C-Poppet L-Control, H-Poppet



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-18A		
Series	4		
Capacity	480 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	41,3 mm		
Valve Installation Torque	474 - 508 Nm		
Seal kit - Cartridge	Buna: 990018007		
Seal kit - Cartridge	EPDM: 990018014		
Seal kit - Cartridge	Viton: 990018006		
Model Weight	1.25 kg.		

© 2025 Sun Hydraulics

CONFIGURATION OPTIONS

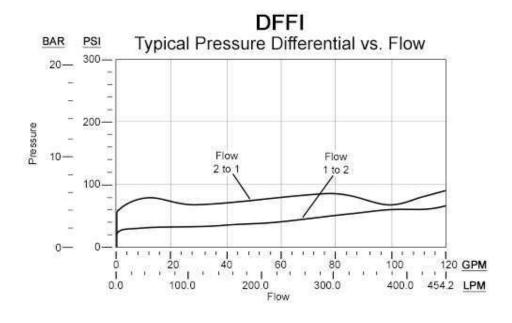
Model Code Example: DFFIXCN

CONTROL	(X)	POPPET CONFIGURATION	(C)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		C Normally Closed		N Buna-N		No coil
D Twist/Lock (Dual) Manual		H Normally Open		E EPDM		* Additional coil options are available
Override				V 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



© 2025 Sun Hydraulics 2 of 2