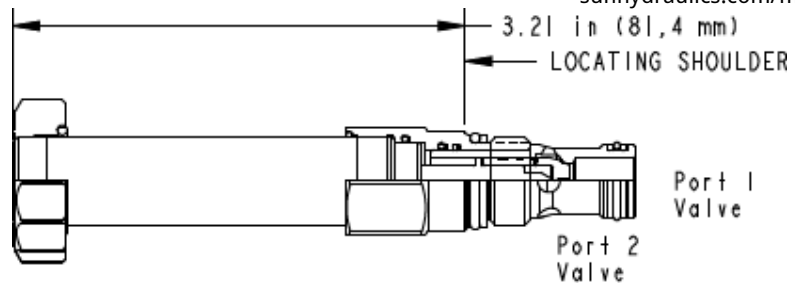


X-Control, C-Poppet



CONFIGURATION

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

This FLeX Series solenoid-operated 2-way, 2-stage cartridge is a pilot-operated directional poppet valve. The valve is low leakage and available in either a normally open or normally closed configuration to control flow from port 2 to port 1. A reverse flow check will allow flow from 1 to 2 in the closed condition. In the open condition, flow from 1 to 2 will cause the valve to auto-close and pilot flow will pass from 1 to 2.

TECHNICAL DATA

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

Cavity	T-162A
Series	0
Capacity	10 gpm
Maximum Operating Pressure	3000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	0.004 in ³ /min.@3000 psi
Check Cracking Pressure	50 psi
Viscosity Range	35 - 2000 SUS
Response Time - Typical	50 ms
Switching Frequency	15,000 max. cycles/hr
Valve Hex Size	3/4 in.
Valve Installation Torque	20 - 25 lbf ft
Seal kit - Cartridge	Buna: 990162007
Seal kit - Cartridge	Viton: 990162006
Model Weight	0.40 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: DFBDArray

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 Override	H Normally Open	E EPDM	* Additional coil options are available
L Twist/Lock (Detent) Manual Override		V Viton	
M Manual Override			
P Manual Pull Override			
T Twist (Momentary) Manual Override			

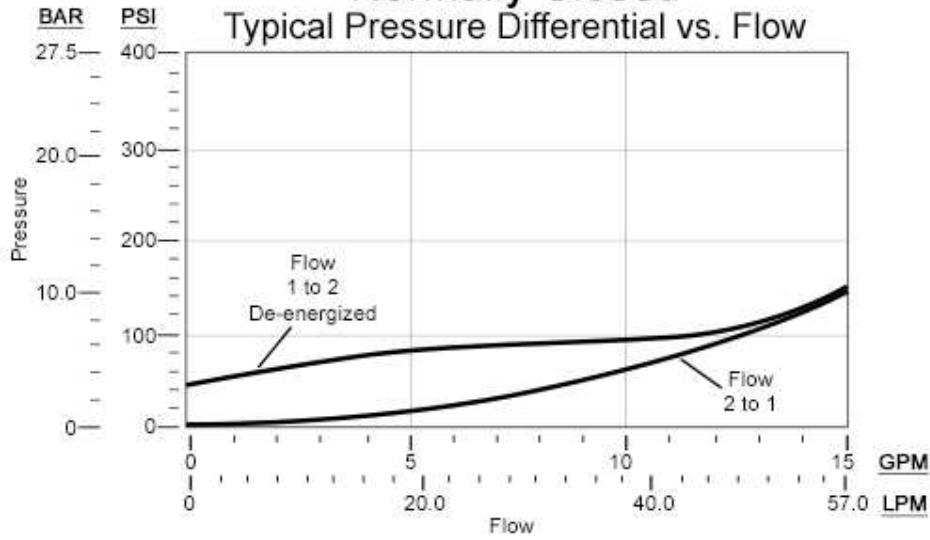
TECHNICAL FEATURES

- 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.
- Designed and tested to 10-million operational cycles at full-rated pressure.
- Exceeds new NFPA test standard T2.6.1 R2014 for fatigue and burst pressure ratings.
- Higher flow rates than competing valves of similar size.
- Designed using CFD simulation for optimized geometries.
- 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 valve exhibits extremely low leakage - 0.004 in3 (0,07 cc)/min (1 drop/min).
- This cartridge utilizes both 740 Series low-power and 747 Series hazardous location coils.
- This valve is available with a manual push-type override option for normally open versions only.
- Models equipped with the P control pull-type manual override allow the operator to shift the valve into a mechanically detented position by fully pulling then twisting the override counter-clockwise. This detented position will be maintained until the operator pulls and twists the manual override clockwise and allows the valve to return to its de-energized position. This pull-type manual override assembly requires a pull force of approximately 15 lbf in. (1,7 Nm) and has a mechanical life expectancy of approximately 2,000 cycles.
- 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.
- A FULL DATA SHEET is available for this model using the link at the top of the page.
- A wide variety of coil termination and voltage options are available, with and without surge protection. See the CONFIGURATION section.
- 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

DFBD Normally Closed

Typical Pressure Differential vs. Flow



DFBD Normally Open

Typical Pressure Differential vs. Flow

