

Pilot-to-close, spring biased open, unbalanced poppet logic element with position switch

Capacity:
50 gpm (200 L/min.)

Functional Group:

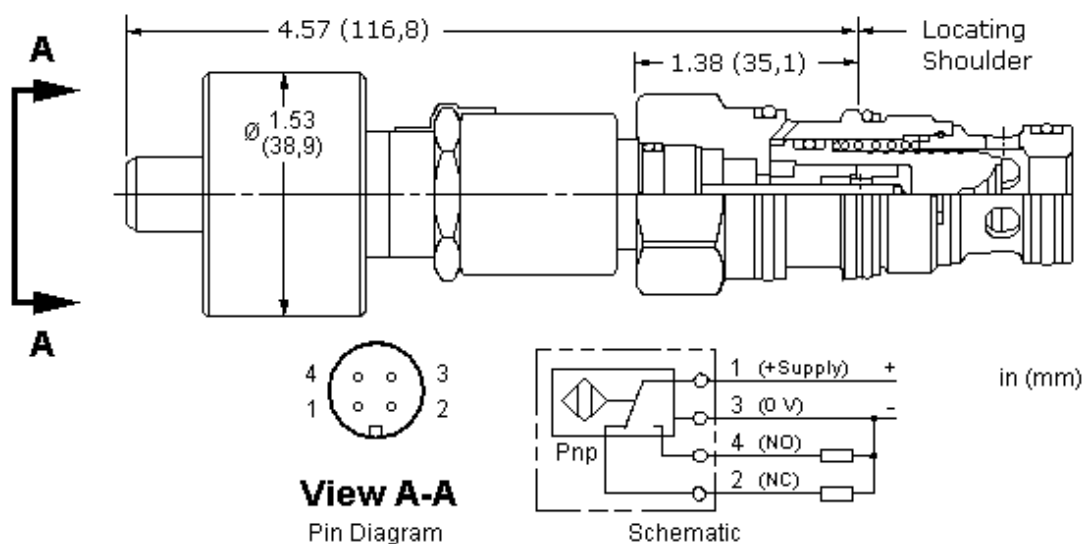
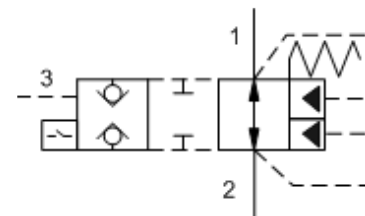
Products : Cartridges : Logic Element : Unbalanced Poppet : Pilot-to-close, Spring Biased Open with Position Indicating Switch

Model:
LOFOZ

Product Description

These unbalanced, pilot-to-close logic valves are 2-way switching elements that are spring biased open. Pressure at either work port 1 or 2 will tend to keep the valve open while pressure at port 3 will tend to close it. The force generated at port 3 must be greater than the sum of the forces acting at port 1 and port 2 plus the spring force for the valve to close. NOTE: The pilot area (port 3) is 1.8 times the area at port 1 and 2.25 times the area at port 2.

This valve incorporates a position switch to provide confirmation that the valve is spring biased to the fully open position.



Technical Features

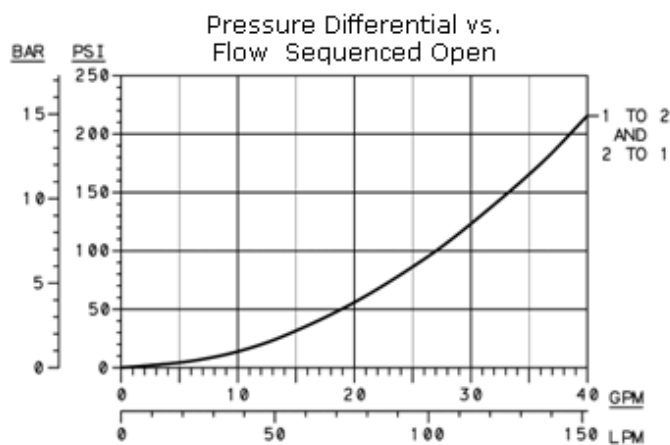
- These valves have positive seals between port 2 and the pilot area.
- These valves are pressure responsive at all ports, therefore it is essential to consider all aspects of system operation through a complete cycle. Pressure changes at any one port may cause a valve to switch from a closed to an open position, or vice versa. All possible pressure changes in the complete circuit must be considered to assure a safe, functional system design.
- This cartridge is supplied as a sealed, factory set unit and is not field serviceable. Any tampering will violate the product warranty.
- All ports will accept 5000 psi (350 bar).
- When torquing this cartridge into its cavity, a crow's foot wrench or similar will be required since the position switch precludes the use of a deep socket wrench.
- Position switch is CE approved.
- Because these valves are unbalanced, operation is pressure dependent. Opening and closing of the poppet are functions of the force balances on three areas: Port 1 = 100%, Port 2 = 80%, and the Pilot Area = 180%.
- 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.

Technical Data

	U.S. Units	Metric Units
Cavity		T-2A
Capacity	50 gpm	200 L/min.
Area Ratio, A3 to A1		1.8:1
Area Ratio, A3 to A2		2.25:1
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.	0,07 cc/min.
Pilot Passage into Valve	.035 in.	0,9 mm
Pilot Volume Displacement	.07 in ³	1,1 cc
Series (from Cavity)		Series 2
Valve Hex Size	1 1/8 in.	28,6 mm
Valve Installation Torque	45 - 50 lbf ft	60 - 70 Nm
Seal Kits - Cartridge		Buna: 990-202-007
Seal Kits - Cartridge		Viton: 990-202-006
Model Weight	1.33 lb.	0.60 kg.

Switch Specifications

	U.S. Units	Metric Units
Supply Voltage		20-30 VDC
Reverse Polarity Protection		Yes
Maximum Output Load		≤ 400 mA, Duty Ratio 100%
Short Circuit Protection		Yes, Load Short Unlimited
Turn On Time		≤ 25 ms
Hysteresis		≤ .002 in.
Operating Temperature Range		-25 to 80 °C
Thermal Shift - 0 to 80 °C ≤ ±	.004 in.	0,1 mm
EMC		DIN EN 61000-6-1/2/3/4
Connector Environment Rating		IP65
Vibration		≥ 50g, 0-500 impulses/sec
Shock		>50 g, 1ms
Connector		M12 X 1 (4) Pin

**LOFO-ZDN****Cracking Pressure****Standard Options****D** 50 psi (3,5 bar)**Seal Material****Standard Options****N** Buna-N**V** Viton