

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

## TECHNICAL DATA

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

Cavity	T-17A
Series	3
Capacity	100 gpm
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	10 drops/min.
Pilot Volume Displacement	.25 in <sup>3</sup>
Area Ratio, A3 to A1	1.8:1
Area Ratio, A3 to A2	2.25:1
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006
Model Weight	2.19 lb.

## CONFIGURATION

<b>D</b>	Cracking Pressure	50 psi (3,5 bar)
<b>N</b>	Seal Material	Buna-N
<b>(none)</b>	Material/Coating	

## CONFIGURATION OPTIONS

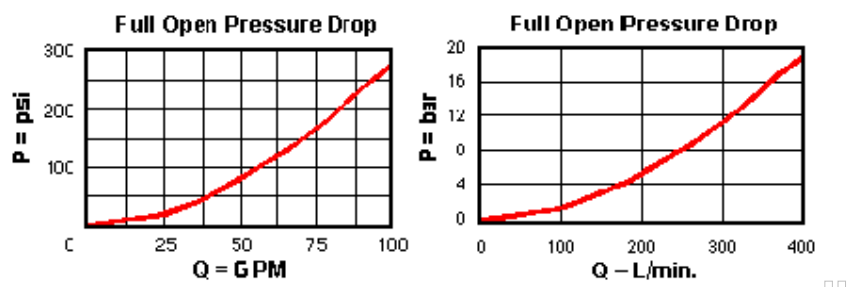
**Model Code Example: LOHCLDN**

CRACKING PRESSURE	(D)	SEAL MATERIAL	(N)	MATERIAL/COATING
<b>D</b> 50 psi (3,5 bar)		<b>N</b> Buna-N		<b>Standard Material/Coating</b>
		<b>E</b> EPDM		/AP Stainless Steel, Passivated
		<b>V</b> Viton		/LH Mild Steel, Zinc-Nickel

## TECHNICAL FEATURES

- These valves have positive seals between port 2 and the pilot area.
- 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.
- 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%.
- 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.
- All ports will accept 5000 psi (350 bar).
- 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



## RELATED MODELS

- [LOHC](#) Pilot-to-close, spring-biased closed, unbalanced poppet logic element
- [LOHCK](#) Pilot-to-close, spring-biased closed, unbalanced poppet logic element
- [LOHCZ](#) Pilot-to-close, spring-biased closed, unbalanced poppet logic element with position switch