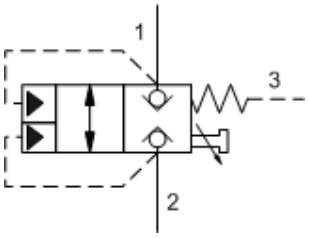
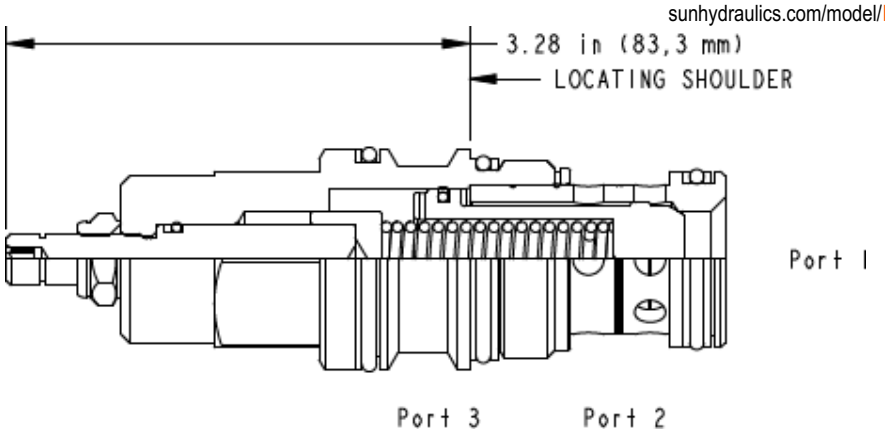
MODEL
LOHCL

Pilot-to-close, spring-biased closed, unbalanced poppet logic element
SERIES 3 / CAPACITY: 100 gpm / CAVITY: T-17A

sunhydraulics.com/model/LOHCL





CONFIGURATION

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

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^3
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	1.33 lb.

CONFIGURATION OPTIONS

Model Code Example: LOHCLDN

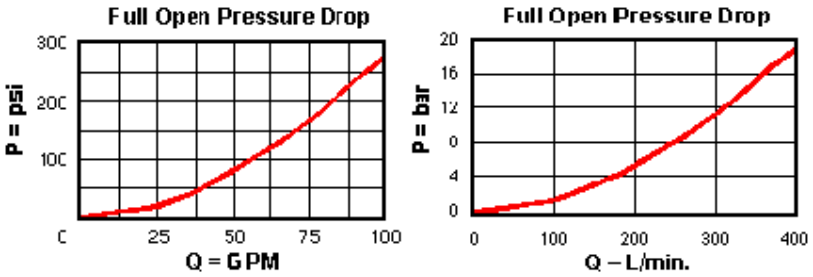
CRACKING PRESSURE (D)	SEAL MATERIAL (N)	MATERIAL/COATING
D 50 psi (3,5 bar)	**N** Buna-N	Standard Material/Coating
	E EPDM	**/AP** Stainless Steel, Passivated
	V Viton	**/LH** Mild Steel, Zinc-Nickel

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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.
- Pilot port 3 requires a controlled pressure. A blocked port 3 may result in pressure intensification due to the floating design of the sleeve.
- 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

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