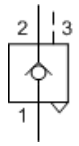
Vented pilot-to-open check valve - atmospherically referenced

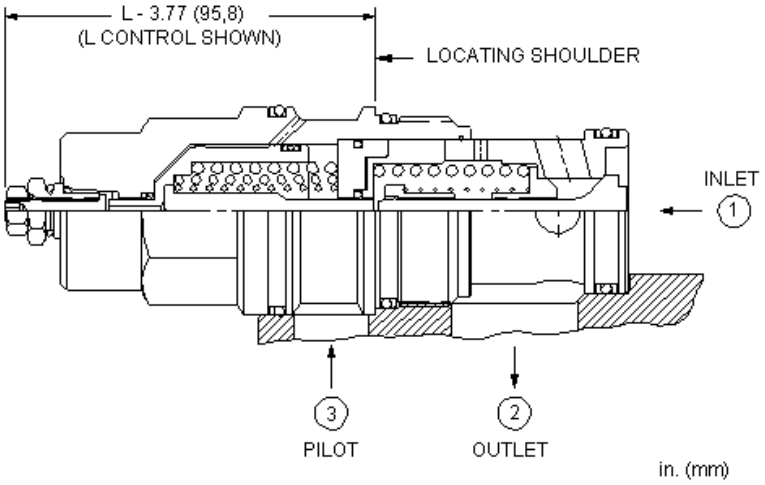
Capacity:
120 gpm (480 L/min.)

Model:
CKIV

Product Description

This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is vented. It allows free flow from the valve (port 2) to the load (port 1) and blocks flow in the opposite direction. Pressure at the pilot (port 3) pilot port will open the valve from port 1 to port 2. Pilot pressure needed to open the valve is directly proportional to the load pressure at port 1. The valve is insensitive to pressure at port 2 because the spring chamber is referenced out the back of the hex body.





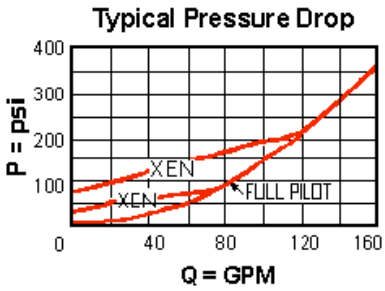
Technical Features

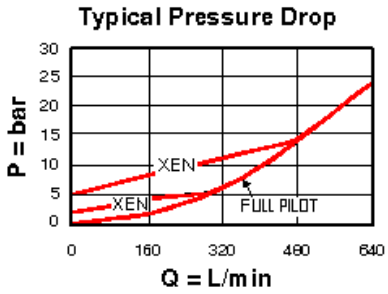
- There is a positve seal between ports 2 and 3.
- Pilot pressure as low as 75 psi (5 bar) higher than the pressure at the vent can prevent the valve from closing.
- Atmospherically referenced pilot-to-open check valves are considered problem solvers for existing circuits using non-vented valves. However, the atmospherically referenced valve will eventually leak externally or allow moisture into the spring chamber. Four-port vented pilot-to-open check cartridges are recommended for new applications.
- Pilot-to-open check cartridges are locking valves, not motion control valves. For motion control applications, use counterbalance valves.
- Approximately 1 drop (0,07 cc) of fluid will pass from the pilot area to the vented spring chamber every 4000 cycles.
- For models with manual load release control option, turn load release clockwise to release load.
- Provides hose break protection, prevents loads from drifting and positively locks pressurized loads.
- Extremely low leakage. The seat and poppet are heat treated for long life. If the load drifts due to the valve, the seat has probably been damaged by contamination and the valve should be replaced.
- Sealed pilot for use in circuits where cross port leakage is undesirable.
- 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-19A	
Capacity	120 gpm	480 L/min.
Pilot Ratio	3:1	
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.	0,07 cc/min.
Series (from Cavity)	Series 4	

Valve Hex Size	1 5/8 in.	41,3 mm
Valve Installation Torque	350 - 375 lbf ft	475 - 500 Nm
Seal Kits - Cartridge	Buna: 990-019-007	
Seal Kits - Cartridge	Viton: 990-019-006	
Model Weight	3.07 lb.	1.39 kg.





CKIV-XCN

Control	Cracking Pressure	Seal Material
Standard Options	Standard Options	Standard Options
S External 4-SAE Vent Port	A 4 psi (0,3 bar)	N Buna-N
X Standard Pilot, Atmospheric Vent	B 15 psi (1 bar)	V Viton
	C 30 psi (2 bar)	
	D 50 psi (3,5 bar)	
	E 75 psi (5 bar)	
	F 100 psi (7 bar)	

Additional Options

Control	Cracking Pressure	Seal Material
L Manual Load Release, External Vent		