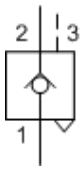
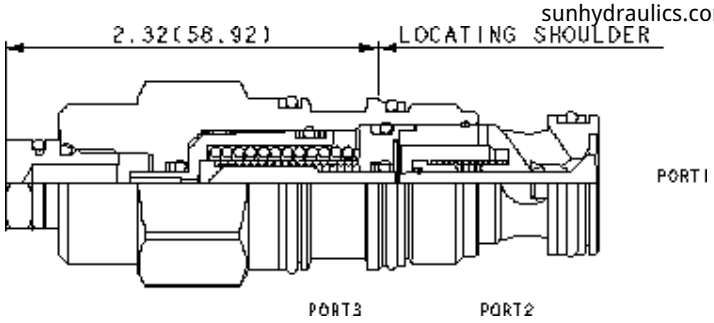
MODEL
CKEV

Vented pilot-to-open check valve - atmospherically referenced
SERIES 2 / CAPACITY: 30 gpm / CAVITY: T-2A

sunhydraulics.com/model/CKEV





CONFIGURATION

X	Control	Standard Pilot, Atmospheric Vent
C	Cracking Pressure	30 psi (2 bar)
N	Seal Material	Buna-N

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 DATA

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

Cavity	T-2A
Series	2
Capacity	30 gpm
Maximum Operating Pressure	5000 psi
Pilot Ratio	3:1
Maximum Valve Leakage at 110 SUS (24 cSt)	1 drops/min.
Valve Hex Size	1 1/8 in.
Valve Installation Torque	45 - 50 lbf ft
Adjustment Screw Internal Hex Size	1/8 in.
Locknut Hex Size	7/16 in.
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006
Model Weight	0.67 lb.

CONFIGURATION OPTIONS

Model Code Example: CKEVXCN

CONTROL (X)

- **X** Standard Pilot, Atmospheric Vent
- **S** External 4-SAE Vent Port

CRACKING PRESSURE (C)

- **C** 30 psi (2 bar)
- **A** 4 psi (0,3 bar)
- **B** 15 psi (1 bar)
- **D** 50 psi (3,5 bar)
- **E** 75 psi (5 bar)
- **F** 100 psi (7 bar)

SEAL MATERIAL (N)

- **N** Buna-N
- **V** Viton

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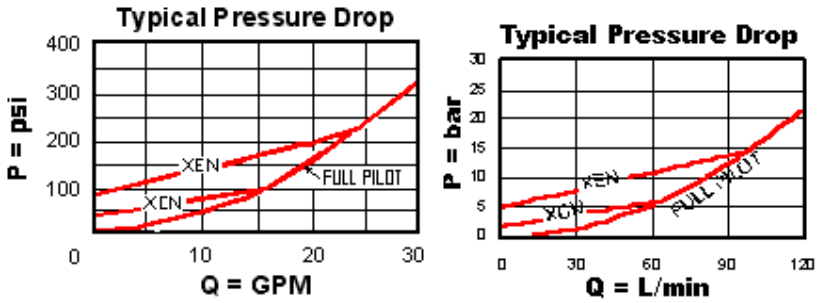
TECHNICAL FEATURES

- 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.
- 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.
- For models with manual load release control option, turn load release clockwise to release load.
- 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



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