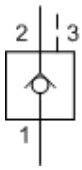
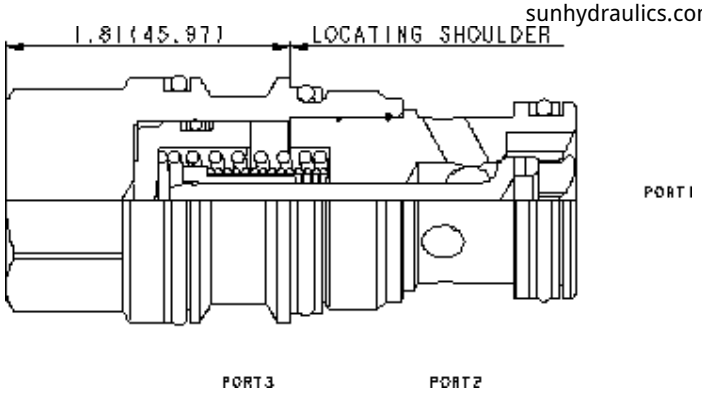
MODEL
CKGD

Pilot-to-open check valve with sealed pilot
SERIES 3 / CAPACITY: 60 gpm / CAVITY: T-17A

sunhydraulics.com/model/CKGD





CONFIGURATION

X	Control	Standard Pilot
C	Cracking Pressure	30 psi (2 bar)
N	Seal Material	Buna-N
(none)	Material/Coating	

This valve is a pilot to open check valve. It has a sealed pilot, a steel seat, and is non-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) will open the valve from port 1 to port 2. Pilot pressure needed at port 3 to open the valve is directly proportional to the load pressure at port 1. Pressure at port 2 directly opposes pilot pressure.

TECHNICAL DATA

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

Cavity	T-17A
Series	3
Capacity	60 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 1/4 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	1.16 lb.

CONFIGURATION OPTIONS

Model Code Example: CKGDXCN

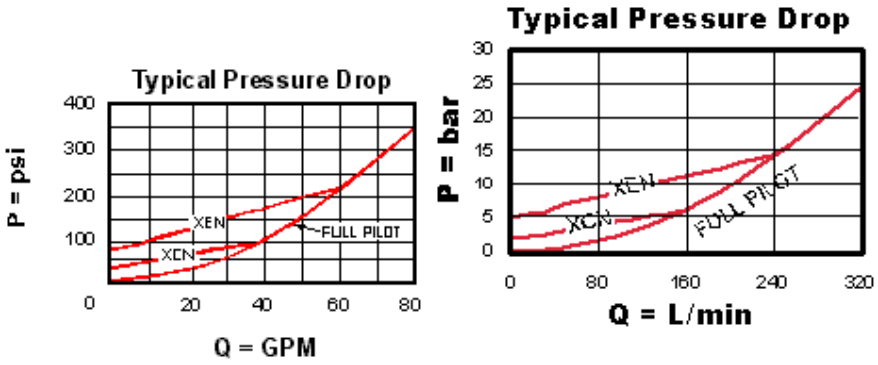
CONTROL (X)	CRACKING PRESSURE (C)	SEAL MATERIAL (N)	MATERIAL/COATING
X Standard Pilot	**C** 30 psi (2 bar)	**N** Buna-N	Standard Material/Coating
L Manual Load Release	**A** 4 psi (0,3 bar)	**E** EPDM	**/AP** Stainless Steel, Passivated
	B 15 psi (1 bar)	**V** Viton	**/LH** Mild Steel, Zinc-Nickel
	D 50 psi (3,5 bar)		
	E 75 psi (5 bar)		
	F 100 psi (7 bar)		

© 2024 Sun Hydraulics

TECHNICAL FEATURES

- 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.
- Optional external porting out of the hex end of the cartridge is available for external piloting. In this configuration, port 3 is blocked. See Control options E, and P.
- Pilot-to-open check cartridges are locking valves, not motion control valves. For motion control applications, use counterbalance valves.
- This 3 port pilot-to-open check valve and 3 port counterbalance valves are physically interchangeable (i.e. same cavities, same flow path for a given frame size). However, cartridge extension dimensions from the mounting surface may vary.
- For models with manual load release control option, turn load release clockwise to release load.
- 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.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of Construction page located under TECH RESOURCES.
- 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



© 2024 Sun Hydraulics