GENERANT

POPPET CHECK VALVE
1/8" - 1/2" Dual Ferrule Tube, Female & Male NPT, 1/4" Face Seal 0-3000 PSIG

PCV SERIES

Description

Poppet type, zero leak, inline check valve for liquid and gas applications to 3000 Psig. Fully retained O-ring seal design permits full rated pressure in the checked direction. Offered with fully interchangeable dual ferrule tube or metal to metal face seal connections. A variety of crack pressures and seal materials, combined with a metal to metal positive stop provides long trouble free service life in the most demanding applications.

Features

- Working Pressures to 3000 Psig (206 bar)
- Full Pressure Rating in Check Direction
- Fully Retained O-ring Seal
- Dual Ferrule Tube, Female NPT, Male NPT and Face Seal Connections Available
- Cracking Pressures from 0.3 to 25 Psig (0.02-1.7 bar)
- 100% Factory tested for crack, leakage and reseal performance

Technical Data

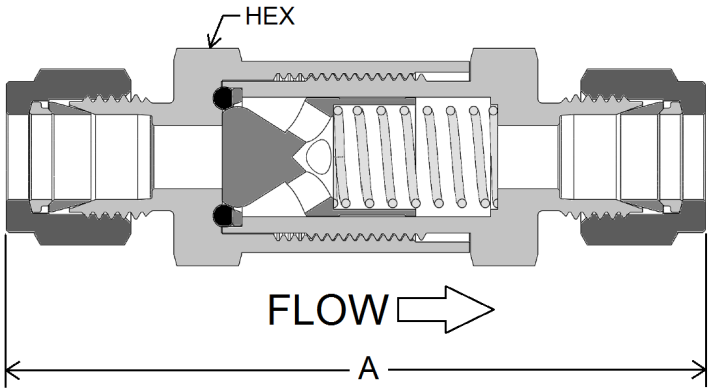
- Nominal Crack Pressures: 0.3, 1, 10, & 25 Psig (0.02, 0,07, 0.7, & 1.7 bar)
- Maximum Pressure: 3000 Psig @ 70°F (206 bar @ 21° C)
- Temperature Rating: -80°F to 375°F (-62°C to 190°C)
  (based on seal selection, see ordering information)

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel
Inlet Cap, Outlet Body, Poppet	Brass, ASTM B16	316 SS, ASTM A479
O-ring Retainer	316 SS, ASTM A479	
Spring	302 SS, ASTM A313	
O'Ring Seal	Buna-N	Viton™

- Lubricated with Krytox™

SERIES PCV POPPET CHECK VALVE



Dimensional/Flow Data

Model Code	Port Configuration		Dimensions/Flow		
	Inlet	Outlet	A[1] (inches)	Hex	Cv
PCV-2T	1/8" Tube	1/8" Tube	2.19	5/8"	0.10
PCV-2P	1/8" Male NPT	1/8" Male NPT	1.71		
PCV-2F	1/8" Female NPT	1/8" Female NPT	1.89		
PCV-4VS[2]	1/4" Face Seal	1/4" Face Seal	2.21		0.47
PCV-4T	1/4" Tube	1/4" Tube	2.35		
PCV-4P	1/4" Male NPT	1/4" Male NPT	2.09		
PCV-4PT	1/4" Male NPT	1/4" Tube	2.22		
PCV-4F	1/4" Female NPT	1/4" Female NPT	2.15	3/4"	
PCV-6T	3/8" Tube	3/8" Tube	3.17	7/8"	1.47
PCV-6P	3/8" Male NPT	3/8" Male NPT	2.78		
PCV-6F	3/8" Female NPT	3/8" Female NPT	2.98		
PCV-8T	1/2" Tube	1/2" Tube	3.42		1.68
PCV-8P	1/2" Male NPT	1/2" Male NPT	3.16		
PCV-8F	1/2" Female NPT	1/2" Female NPT	3.58	1-1/16"	

1 Dimensions are shown with nuts finger-tight.
2 316 SS only
Flow tested in accordance with ISA S75.21 with air. Restrictions in the inlet or outlet piping may reduce flow.
Other Inlet and Outlet combinations available. Consult Factory.

Ordering Information

PCV - 4T SS - V - 1

SERIES
PCV - Poppet Check Valve

PORT CONFIGURATION
2T - 1/8" Tube x 1/8" Tube
2P - 1/8" Male NPT x 1/8" Male NPT
2F - 1/8" Female NPT x 1/8" Female NPT
4VS - 1/4" Face Seal x 1/4" Face Seal
4T - 1/4" Tube x 1/4" Tube
4P - 1/4" Male NPT x 1/4" Male NPT
4PT - 1/4" Male NPT x 1/4" Tube
4F - 1/4" Female NPT x 1/4" Female NPT
6T - 3/8" Tube x 3/8" Tube
6P - 3/8" Male NPT x 3/8" Male NPT
6F - 3/8" Female NPT x 3/8" Female NPT
8T - 1/2" Tube x 1/2" Tube
8P - 1/2" Male NPT x 1/2" Male NPT
8F - 1/2" Female NPT x 1/2" Female NPT

MATERIAL CODE
B - Brass
SS - 316 SS

CRACK PRESSURE
.3 - (.1 - .4 Psig) (0.02 bar)
1 - (.5 - 1 Psig) (0.07 bar)
10 - (8 - 12 Psig) (0.7 bar)
25 - (22 - 27 Psig) (1.7 bar)

SEAL MATERIAL
V - Viton™, -10°F to 375°F (-23°C to 190°C)
B - Buna-N, -40°F to 250°F (-40°C to 121°C)
N - Neoprene, -40°F to 300°F (-40°C to 148°C)
EP - Ethylene Propylene, -65°F to 300°F (-54°C to 148°C)
FS - Fluorosilicone, -80°F to 350°F (-62°C to 176°C)
S - Silicone, -70°F to 450°F (-56°C to 232°C)

OPTIONS
Oxygen cleaning, alternative seals and other thread configurations, consult factory

Note: Viton™ and Krytox™ are trademarks of DuPont.

PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

GENERANT
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