GENERANT

ONE PIECE CHECK VALVE

1/4" & 1/2" NPT
0 - 3000 Psig

SERIES OPC

Description

Compact one piece body, fully retained O'ring seal, poppet type check valve. Available in 1/4" and 1/2" NPT in brass or 316 stainless steel. Suitable for working pressures to 3000 Psig. A wide selection of seal materials and crack pressures make the Series OPC a quality and cost effective solution. All valves are 100% factory tested and available cleaned and packaged for oxygen service.

Features and Benefits

- Compact One Piece Body Construction
- Working Pressures to 3000 Psig (206 bar)
- Full Back Pressure Rating
- Fully Retained O'Ring Seal
- Cracking Pressures from .3 to 25 Psig (0.02 - 1.7 bar)
- 100% Factory tested for crack, leakage and reseal performance

Technical Data

- Nominal Crack Pressures: .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 450˚F (-62˚C to 232˚C)

(based on seal selection, see ordering information)

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel
Body, Poppet, Seat Insert, Locking Screw[1]	Brass, ASTM B16	316 SS, ASTM A479[2]
Spring	302 SS, ASTM A313	
O'Ring Seal[3]	Buna-N	Viton™

1 *1/4" Brass valves have 316 SS locking screw*
2 *PTFEdry lubricant applied to threads*
3 *Lubricated with Krytox™ GPL-202*

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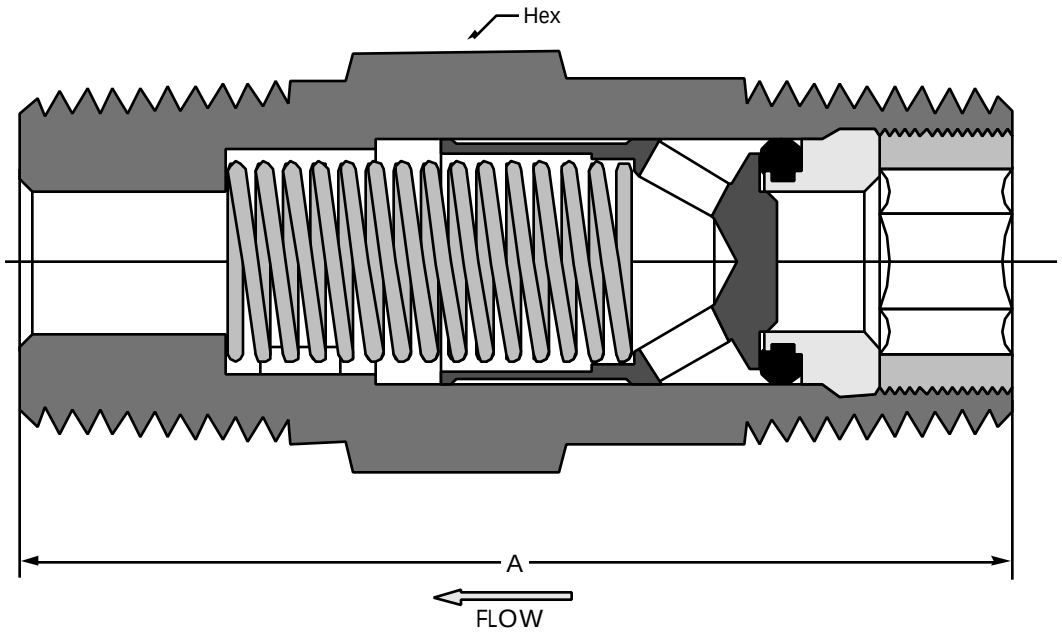

Dimensional/Flow Data

Model Code	Port Configuration		A (inches)	Hex	Cv
	Inlet	Outlet			
OPC-4P	1/4" Male NPT	1/4" Male NPT	1.62	9/16"	0.35
OPC-4MF	1/4" Male NPT	1/4" Female NPT	1.75	3/4"	
OPC-4FF	1/4" Female NPT	1/4" Female NPT	2.41		
OPC-8P	1/2" Male NPT	1/2" Male NPT	2.28	7/8"	1.20
OPC-8MF	1/2" Male NPT	1/2" Female NPT	2.83	1 - 1/16"	

Flow tested in accordance with ISA S75.21 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

OPC – 4P SS – V – 1

SERIES

OPC - One Piece Check Valve

PORT CONFIGURATION

4P - 1/4" Male x 1/4" Male
4MF - 1/4" Male x 1/4" Female
4FF - 1/4" Female x 1/4" Female
8P - 1/2" Male x 1/2" Male
8MF - 1/2" Male x 1/2" Female

NPTThreads per ANSI/ASME B1.20.1

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)
T - TFE, -50˚F to 350˚F (-46˚C to 177˚C)

TFESeal may require back pressure to seal leak-tite

OPTIONS

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

Viton, Krytox - ™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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