GENERANT
Valves & Bi-Lok Fittings

INLINE CHECK VALVE
1/8" – 3/4" NPT
Vacuum – 800 Psig

ICV SERIES

Description

A compact, inline, direct acting poppet check valve suitable for pressure and vacuum applications. Bubble tight sealing is achieved by a line of contact between a precision machined seat and a standard elastomer O-ring with minimum differential pressure, regardless of mounting attitude. Floating poppet and fluted retainer design provides laminar flow. Metal to metal positive stop ensures long service life.

Technical Data

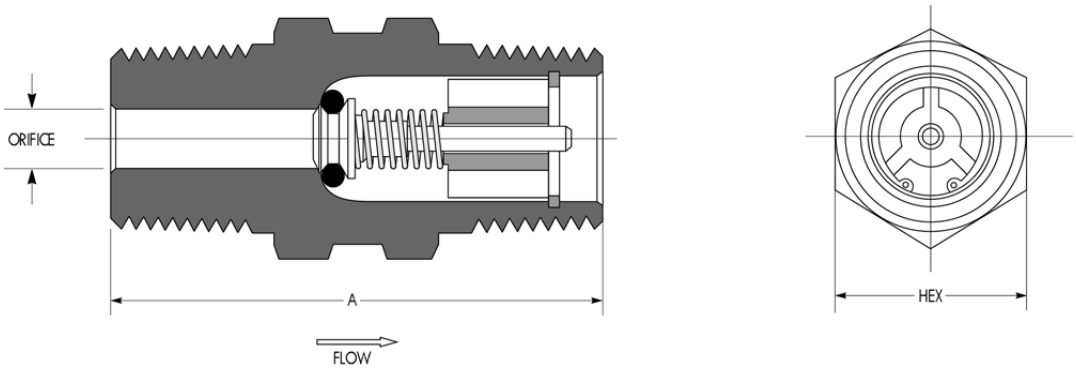
- Nominal Crack Pressures: .15, 1 & 3 Psig (0.01, 0.07 & 0.21 bar)
- Proof Pressure: 1200 Psig (83 bar)
- Operating Pressure Range: Vacuum - 800 Psig (55 bar)
- Leakage: Zero @ > 0.5 Psig Back Pressure (0.03 bar)
- Temperature Rating:
  -80°F to 375°F (-62°C to 190°C)
  based on seal material

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel[1]
Body, Poppet	Brass, ASTM B16	316 SS, ASTM A479
Spring Retainer	Brass, ASTM B16[2]	316 SS, ASTM A479
Spring	302 SS, ASTM A313	
O'Ring[3]	Buna-N	Viton™
Retaining Ring	Zinc Plated Carbon Steel	Stainless Steel

1 Stainless Steel available in 1/8", 1/4", 3/8" & 1/2" Male x Male only
2 1/8" & 1/4" Brass valves have 316SS retainer
3 Lubricated with Krytox™

SERIES ICV
INLINE CHECK VALVE



Dimensional/Flow Data

Pipe Size (NPT)	Port Configuration		A (inches)	HEX	Orifice (inches)	Cv	Flow at Max Psid[1] (SCFM)
	Inlet	Outlet					
1/8”	Male	Male	1.312	1/2"	.140	0.4	7.2
	Female	Female	1.687				
	Female	Male	1.437				
1/4"	Male	Male	1.592	5/8”	.193	0.8	14.3
	Female	Female	1.937	3/4"			
	Female	Male	1.500				
3/8”	Male	Male	1.610	3/4"	.270	1.2	21.5
1/2"	Male	Male	2.140	7/8”	.327	2.0	35.5
3/4"	Male	Male	2.160	1 – 1/8”	.467	5.0	90.0

1. *Maximum allowable pressure drop 15 Psid.*

Flow tested in accordance with ISA S75.02 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

ICV - FF - 250 B - V - 1

SERIES
ICV - Inline Check Valve

PORT CONFIGURATION
MM - Male x Male (Standard/Omit)
FF - Female x Female (1/8" & 1/4” brass only)
FM - Female x Male (1/8" & 1/4” brass only)

PIPE SIZE (NPT)
125 - 1/8”
250 - 1/4"
375 - 3/8”
500 - 1/2"
750 - 3/4" (brass only)
NPT threads per ANSI/ASME B1.20.1

CRACK PRESSURE
.15 - (.1-.4 Psig) (0.01 bar)
1 - (.5 - 1 Psig) (0.07 bar)
3 - (2-4 Psig) (0.21 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 250° F (-40° C to 121° 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, -65° F to 400° F (-54° C to 205° C)

MATERIAL CODE
B - Brass
SS - 316 SS

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.

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