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

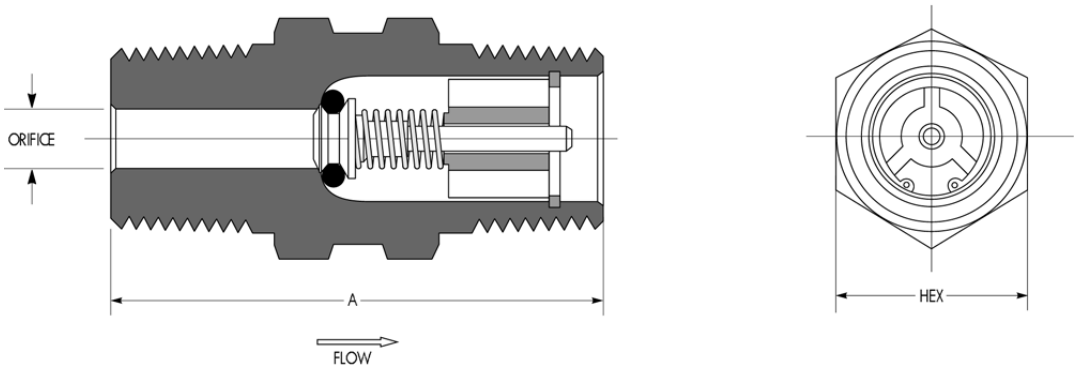
- Nominal Crack Pressures: .15, 1 & 3 Psig (0.01, 0.07 & 0.21 bar)
- Proof Pressure: 1200 Psig (83 bar)
- Operating Pressure Range: Vacuum - 800 Psig (55 bar)
- Leakage: Zero @ > 0.5 Psig Back Pressure (0.03 bar)
- Temperature Rating:
  -80°F to 375°F (-62°C to 190°C)
  based on seal material

### 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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