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

<table>
<thead>
<tr>
<th>Component</th>
<th>Valve Body Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet Cap, Outlet Body, Poppet</td>
<td>Brass, ASTM B16</td>
</tr>
<tr>
<td></td>
<td>Brass, Stainless Steel</td>
</tr>
<tr>
<td>O-ring Retainer</td>
<td>316 SS, ASTM A479</td>
</tr>
<tr>
<td>Spring</td>
<td>302 SS, ASTM A313</td>
</tr>
<tr>
<td>O’Ring Seal</td>
<td>Buna-N</td>
</tr>
<tr>
<td></td>
<td>Viton™</td>
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</tbody>
</table>

- Lubricated with Krytox™
### Dimensional/Flow Data

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Port Configuration</th>
<th>Dimensions/Flow</th>
</tr>
</thead>
</table>
| PCV-2T     | 1/8" Tube x 1/8" Tube | A' (inches) 2.19
|            |                      | Hex 5/8"       |
|            |                      | Cv 0.10        |
| PCV-2P     | 1/8" Male NPT x 1/8" Male NPT | A' (inches) 1.71
|            |                      | Hex 5/8"       |
|            |                      | Cv 0.10        |
| PCV-2F     | 1/8" Female NPT x 1/8" Female NPT | A' (inches) 1.89
|            |                      | Hex 5/8"       |
| PCV-4VS    | 1/4" Face Seal x 1/4" Face Seal | A' (inches) 2.21
|            |                      | Hex 5/8"       |
|            |                      | Cv 0.47        |
| PCV-4T     | 1/4" Tube x 1/4" Tube | A' (inches) 2.35
|            |                      | Hex 5/8"       |
| PCV-4P     | 1/4" Male NPT x 1/4" Male NPT | A' (inches) 2.09
|            |                      | Hex 5/8"       |
| PCV-4PT    | 1/4" Male NPT x 1/4" Tube | A' (inches) 2.22
|            |                      | Hex 5/8"       |
| PCV-4F     | 1/4" Female NPT x 1/4" Female NPT | A' (inches) 2.15
|            |                      | Hex 3/4"       |
| PCV-6T     | 3/8" Tube x 3/8" Tube | A' (inches) 3.17
|            |                      | Hex 7/8"       |
| PCV-6P     | 3/8" Male NPT x 3/8" Male NPT | A' (inches) 2.78
|            |                      | Hex 7/8"       |
| PCV-6F     | 3/8" Female NPT x 3/8" Female NPT | A' (inches) 2.98
|            |                      | Hex 7/8"       |
| PCV-8T     | 1/2" Tube x 1/2" Tube | A' (inches) 3.42
|            |                      | Hex 1"         |
| PCV-8P     | 1/2" Male NPT x 1/2" Male NPT | A' (inches) 3.16
|            |                      | Hex 1"         |
| PCV-8F     | 1/2" Female NPT x 1/2" Female NPT | A' (inches) 3.58
|            |                      | Hex 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

- **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

- **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 300°F (-62°C to 176°C)
  - S - Silicone, -70°F to 450°F (-56°C to 232°C)
  - T - PTFE, -50°F to 350°F (-46°C to 176°C)
  - PTFE Seal may require back pressure to seal leak tight.

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

- **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)

- **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.

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

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