

HIGH PRESSURE CHECK VALVE
1/4" and 1/2" NPT
10,000 Psig (690 Bar)

HPCV

SERIES

Description

Series HPCV is a High Pressure, One-Piece Body, Zero Leak, Check Valve for High Pressure and Severe Service applications. The unique design features a fully retained encapsulated O-ring seal with metal to metal backup for long service life. Available in Brass, 316 and 17-4 PH Stainless Steel to 10,000 psig.

Features

- One-Piece Body Design
- Encapsulated Seal with Metal Backup
- Self Purging Design prevents leakage
- Increasing Pressure Increases Sealing Efficiency

Technical Data

Maximum Operating Pressure @ 100° F

| Body Material | Operating Pressure Psig (Bar) | Proof Pressure Psig (Bar) |
|-------------------|-------------------------------|---------------------------|
| Brass | 5000 (345) | 7500 (517) |
| 316 Stainless | 6000 (413) | 10000 (690) |
| 17-4 PH Stainless | 10000 (690) | 15000 (1034) |

Minimum Burst Pressure: Greater than 3 times Operating Pressure

Leakage:

Elastomeric Seals: Zero @ 1.0 Psig (0.07 Bar) to Proof
 Teflon Seals: Zero @ 75 Psig (5.2 Bar) to Proof

Nominal Crack Pressure: 2 - 5 Psig (0.14 - 0.34 Bar)

Temperature Range:

Seal Dependent (see How to Order)

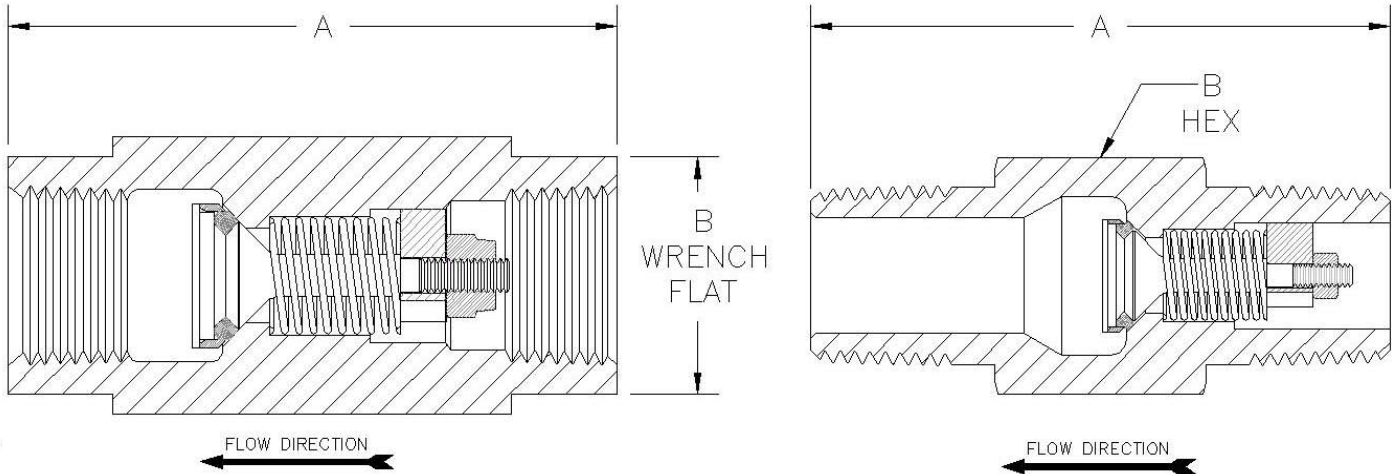
Materials of Construction

| Component | Valve Body Materials | | |
|-----------------|---|---------------------|---|
| | Brass | 316 Stainless Steel | 17-4 PH Stainless Steel |
| Valve Body | Brass, ASTM B16 | 316SS, ASTM A479 | 17-4 PH SS, ASTM A564, Heat Treated to H1150D |
| Stem | | | 17-4 PH SS, ASTM A564 |
| Spring Retainer | | | 303 SS, ASTM A582 |
| O-Ring Shroud | 303 SS, ASTM A582 | | |
| Spring | 302 SS, ASTM A313 | | |
| Locknut | Corrosion Resistant Austenitic Steel (CRES) | | |
| O-Ring | Buna-N, Teflon® or Viton® | | |

O-rings are lubricated with Krytox®



HIGH PRESSURE CHECK VALVE

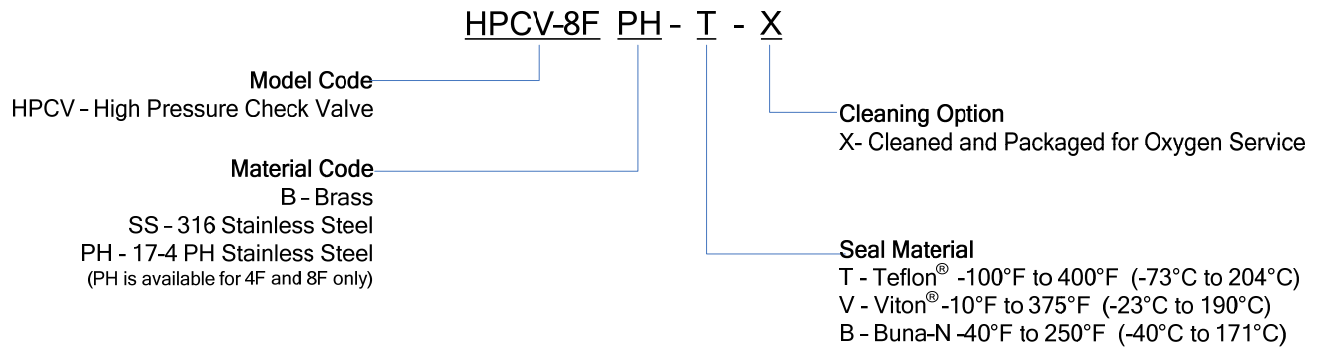


Dimensional Data

| Model Code | Port Configuration | | Flow Coefficient, Cv | Dimensions in inches (mm) | |
|------------|--------------------|--------|----------------------|---------------------------|-----------------------|
| | Inlet | Outlet | | OAL | Hex Size ¹ |
| HPCV-4F | 1/4" Female NPT | | 0.69 | 2.00 (50.8) | 3/4 (19.05) |
| HPCV-8F | 1/2" Female NPT | | 2.63 | 2.89 (73.4) | 1-1/8 (28.58) |
| HPCV-4P | 1/4" Male NPT | | 0.32 | 1.82 (46.23) | 5/8 (15.88) |
| HPCV-8P | 1/2" Male NPT | | 1.83 | 2.75 (69.85) | 1 (25.4) |

Note: Dimensions are in inches (millimeters), for reference only and subject to change.
 Flow Coefficient stated with Nitrogen and 2 - 5 Psig Nominal Spring.
¹ Female x Female Configuration made from Round Stock with Wrench Flats.
 NPT Threads per ASME B1.20.1

How To Order



For additional configurations consult factory.

Krytox®, Teflon® and Viton® are registered trade marks 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.



www.generant.com

1865 Route 23 South PO Box 768 Butler, New Jersey 07405 973.838.6500 Fax 973.838.4888