



# Hi-Check Non-Return Valve

**(316 Stainless steel, Duplex and Monel)  
6,000 psi/414 bar  
10,000 psi/689 bar (Option)**



## Product Description

These high performance check valves offer the user two options for cold working pressure ratings of Class 2500 and Class 4500, with an opening pressure of 10 psi max.

By offering a true two piece design, body leakage paths are kept to a minimum.

With the added opportunity to select integral compression ends the user can eliminate the use of taper threads and thread sealant. This avoids system contamination, reduces potential leakage paths, weight, space and, therefore, installation costs.

## Features

- Two-piece metal seated body design - minimal leakage paths.
- 4:1 Pressure boundary designed safety factor.
- Designed to meet pressure and temperature requirements of ANSI/ASME B.16.34, as limited by the seat materials.
- Nitrile, Fluorocarbon, EPR and Highly Fluorinated Fluorocarbon Rubber seat materials available.
- Integral compression ends available.
- Factory tested - all units fully hydrostatically tested to 1.5 x max. W.P.
- Connector thread environmentally sealed.
- NACE MR 01 75/ISO 15156 compliant materials available.

## Benefits

- Self-centering Seal.
- Low noise.
- Rugged Design - Threads not in contact with media.
- Zero coil bounding check spring.
- Explosive decompression/Extrusion resistance o-rings for High Pressure Applications.
- Optional secured Locking Connector.

## Specifications:

### Cold Working Pressure Ratings

- 6000 psig (414 barg) & 10,000 psig (689 barg)

### Temperature Rating:

Material Temperatures limited to working temperatures of seals below:

6000 psig (414 barg)

- Fluorocarbon -15°F to 400°F (-26°C to 204°C).
- Nitrile -30°F to 275°F (-34°C to 135°C).
- Ethylene Propylene Rubber -70°F to 275°F (-57°C to 135°C).
- Highly Fluorinated Fluorocarbon Rubber -15°F to 200°F (-26°C to 93°C).

10,000 psig (689 barg) Option

- Fluorocarbon V1238-95 -15°F to 400°F (-26°C to 204°C).
- Highly Fluorinated Fluorocarbon Rubber -15°F to 200°F (-26°C to 93°C).

### Crack and Re-seal

- Cracking Pressure: <10 psi (0.69 barg).
- Re-seal Pressure: <50 psi (3.45 barg).

Re-seal pressure is defined as the upstream pressure at which the non-return valve closes bubble-tight.

Note: Hi-check non-return valves which are not actuated for a period of time, may initially crack at a higher pressure than the above cracking pressure listed.

**Cv: 1.54**

## WARNING

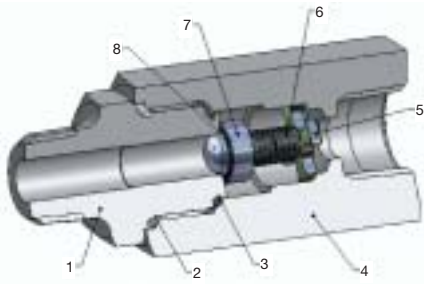
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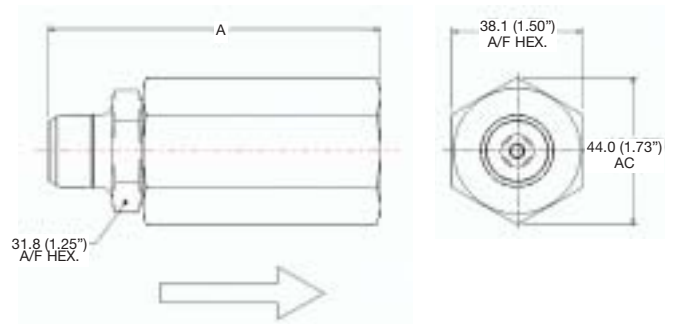
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Item	Description
1	Adaptor
2	E-seal™
3	Joint Seal
4	Body
5	Spring Support
6	Spring
7	Poppet
8	O-ring



Part number 6000 psig (414 barg)	Part number 10,000 psig (689 barg)	Inlet	Outlet	Dimensions
HCY*4FF-#	HCY*4FFHP-#	1/4" Female	1/4" Female	74.7 (2.04)
HCY*6FF-#	HCY*6FFHP-#	3/8" Female	3/8" Female	79.7 (3.14)
HCY*8FF-#	HCY*8FFHP-#	1/2" Female	1/2" Female	87.9 (3.46)
HCY*4M4F-#	HCY*4M4FHP-#	1/4" Male	1/4" Female	74.7 (2.94)
HCY*8M8F-#	HCY*8M8FHP-#	1/2" Male	1/2" Female	87.9 (3.46)
HCY*4A-#	HCY*4AHP-#	1/4" OD A-LOK®	1/4" OD A-LOK®	106.8 (4.20)
HCY*6A-#	HCY*6AHP-#	3/8" OD A-LOK®	3/8" OD A-LOK®	107.3 (4.23)
HCY*8A-#	HCY*8AHP-#	1/2" OD A-LOK®	1/2" OD A-LOK®	113.7 (4.48)
HCY*M6A-#	HCY*M6AHP-#	6mm OD A-LOK	6mm OD A-LOK	106.8 (4.20)
HCY*M10A-#	HCY*M10AHP-#	10mm OD A-LOK	10mm OD A-LOK	107.8 (4.25)
HCY*M12A-#	HCY*M12AHP-#	12mm OD A-LOK	12mm OD A-LOK	113.7 (4.48)

Material	*Insert
316 Stainless Steel	B
Duplex	E
Monel	D

Available Options	Part number suffix
NACE	NC
Secured end connector	LC

O-Ring Suffix # 6000 psig (414 barg)	Compound Options
FC	Fluorocarbon Rubber FPM 75
BN	Buna-N
EP	Ethylene Propylene Rubber
ED	Fluorocarbon Rubber V1238-95
KZ	Highly Fluorinated Fluorocarbon Seal

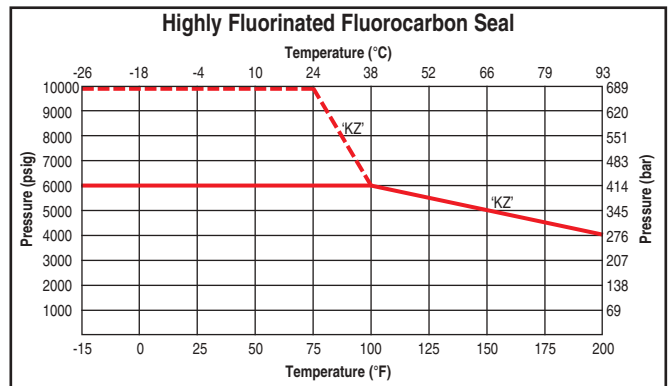
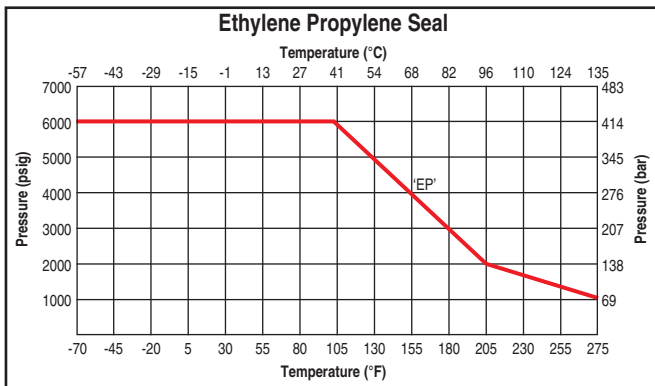
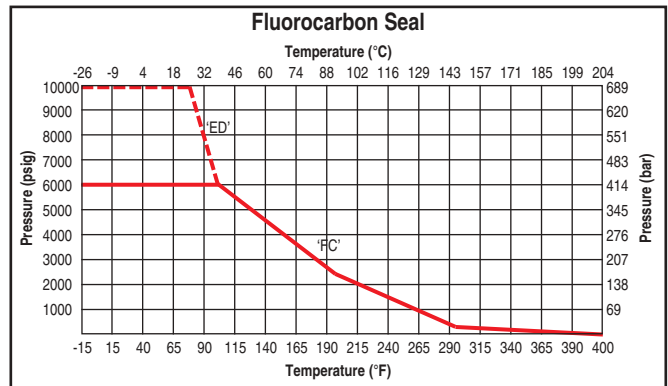
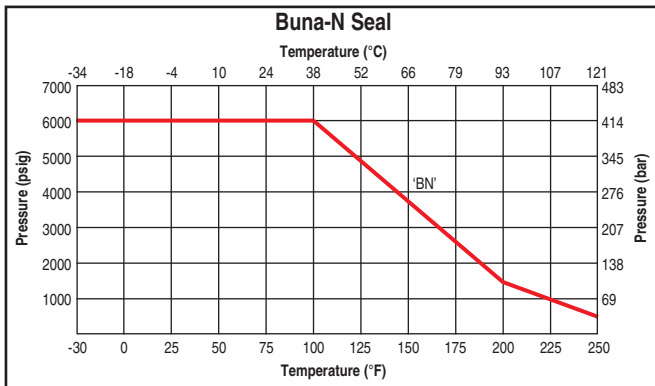
O-Ring # Suffix # 10,000 psig (689 barg)	Compound Options
ED	Fluorocarbon Rubber V1238-95
KZ	Highly Fluorinated Fluorocarbon Seal

Above options to be inserted prior to O-ring suffix

Example 'HCYB8FFHPNC-ED'  
Hi-Check 10mm 316 St.Stl 1/2" NPT (FEM) 10,000 psi NACE with Fluorocarbon V1238-95 rubber

\*Insert material code - select from material matrix (B = Standard 316 Stainless Steel)  
# O-ring code - select from O-ring compound matrix  
For CPI™ change A to Z. "A" Dimensions given for A-LOK® are finger tight.  
NACE only available on Pipe Thread Connections.  
For Compression ended valve pressures consult tube rating table.

## Pressure vs. Temperature



Note: To determine MPa, multiply bar by 0.1 Key: — 6,000 psi - - - 10,000 psi

## Cat 4190 CV



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