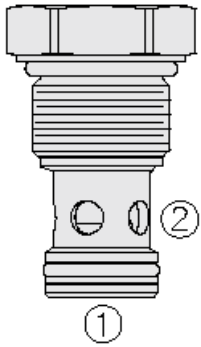




## Overview



### Description

The HCV12-20 is a screw-in, cartridge style, hydraulic check valve for use as a blocking or load-holding device for high pressure applications

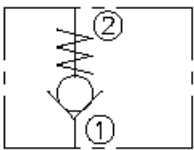
### Operation

The check valve allows flow from port 1 to 2, while normally blocking flow in the opposite direction. The cartridge valve has a fully guided poppet which is spring biased closed until sufficient pressure is applied at port 1 to open to port 2

### Features

- Hardened seat for long life and low leakage.
- Optional bias springs for back-pressure application flexibility.
- Fully guided check assembly.
- Cost-effective cavity.
- All HyPerformance products are tested to the rigorous standards of the NFPA specification T2.6.1.
- All HyPerformance valves are tested at a verification level of 90% and an assurance of 99%.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	350 bar (5075 psi) 420 bar (6090 psi)	- Note: 10% cycle life
Proof pressure	690 bar (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

### Flow Ratings

Flow rating	95 lpm (25 gpm)	
Maximum internal leakage	0.25 ml/min (5 drops/min)	- Note: At 350 bar (5075 psi)

### Other Ratings

Cycle life	One million cycles
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### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

## Operating Parameters

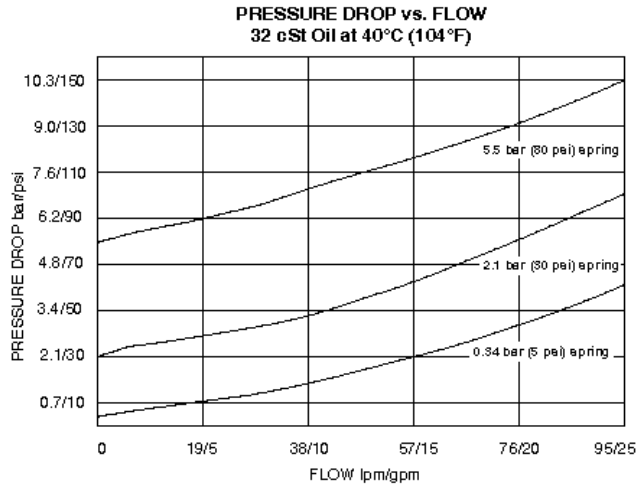
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

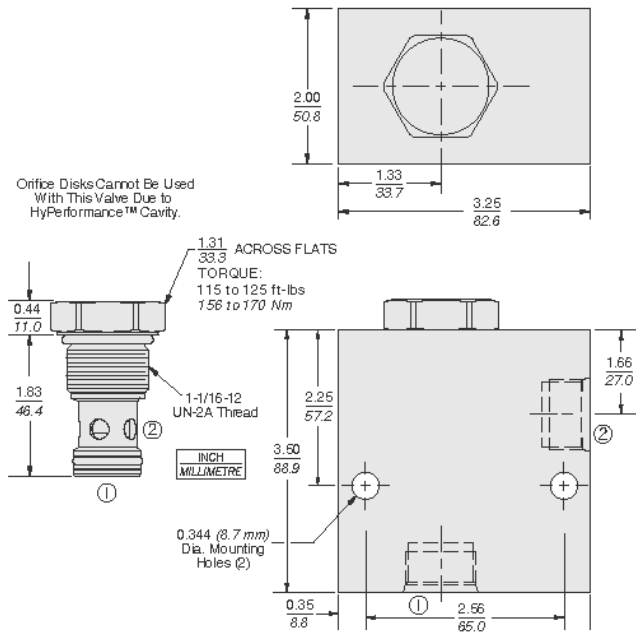
Unit weight	0.18 kg (0.40 lb)
Internal wetted surface area	135 cm <sup>2</sup> (21 in <sup>2</sup> )



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.18 kg. (0.40 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces; PPDI urethane seals without back-ups standard.

**Standard Ported Body:** Weight: 2.74 kg. (6.05 lbs.); H-series ductile iron standard. Rated to 345 bar (5000 psi).

## Installation Specifications

Cavity	Hvc12-2	
Cartridge installation torque	156 to 170 N-m (115 to 125 ft-lb) 122 to 136 N-m (90 to 100 ft-lb)	- <b>Note:</b> Steel/ductile iron cavity - <b>Note:</b> Aluminum cavity
Orientation restriction	None	

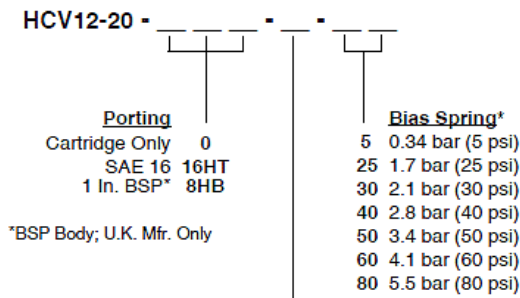
## Accessories

Seal kit	SK12-2N-T	- <b>Note:</b> Buna N
	SK12-2V-T	- <b>Note:</b> Fluorocarbon
	SK12-2HV-T	- <b>Note:</b> Fluorocarbon
	SK12-2U-O	- <b>Note:</b> Urethane
Housings		



**Order Code**

POSITION	CODE	DESCRIPTION
		HCV12-20-H-J-R
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	U	PPDI Urethane
R		Spring
R	5	5 psi Bias Spring
R	25	25 psi Bias Spring
R	30	30 psi Bias Spring
R	40	40 psi Bias Spring
R	50	50 psi Bias Spring
R	60	60 psi Bias Spring
R	80	80 psi Bias Spring



\*BSP Body; U.K. Mfr. Only

**Seals**  
 U PPDI Urethane - Recommended for pressures above 241 bar (3500 psi)

**NOTE:** Additional seal options available. Consult factory.