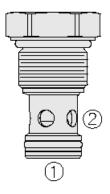


# Overview



Symbol

# **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%.

Ratings

<u>Pressure Ratings</u>	
Pressure rating	350 bar (5075 psi) 420 bar (6090 psi) - <b>Note:</b> 10% cycle life
Proof pressure	690 bar (10000 psi)
Burst pressure	1380 bar (20000 psi)
<u>Flow Ratings</u>	
Flow rating	95 lpm (25 gpm)
Maximum internal leakage	0.25 ml/min (5 drops/min) - Note: At 350 bar (5075 psi)
<u>Other Ratings</u>	
Cycle life	One million cycles
<u>Temperature Ratings</u>	
Operating fluid temperature	-40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F) - Note: With buna N seals - Note: With fluorocarbon seals - 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**

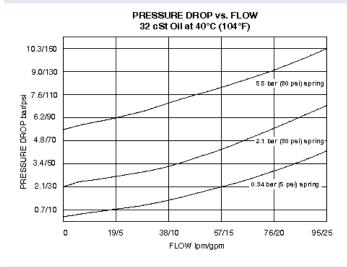
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination	18/16/13 per ISO 4406
level	

## **Properties**

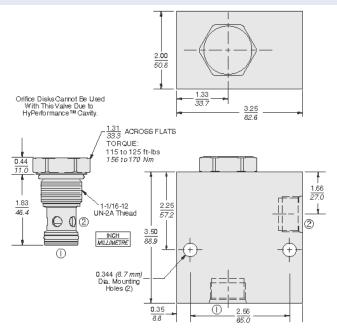
Unit weight	0.18 kg (0.40 lb)
Internal wetted surface area	135 cm² (21 in²)



# Performance



## **Dimensions**



# **Installation Specifications**

Cavity Cartridge installation torque Orientation restriction

## . .

Accessories

Seal kit

HVC12-2

156 to 170 N-m (115 to 125 ft-lb) 122 to 136 N-m (90 to 100 ft-lb) None Note: Steel/ductile iron cavity
Note: Aluminum cavity

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SK12-2N-T	- Note: Buna N
SK12-2V-T	- Note: Fluorocarbon
SK12-2HV-T	- Note: Fluorocarbon
SK12-2U-O	- Note: Urethane

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# **Order Code**

HCV12-20 -Т 1 Porting 199 Cartridge Only 0 SAE 16 16HT 1 In. BSP\* 8HB

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

Bias Spring\* 5 0.34 bar (5 psi) 25 1.7 bar (25 psi) 20 1.7 bar (20 psi) 30 2.1 bar (30 psi) 40 2.8 bar (40 psi) 50 3.4 bar (50 psi) 60 4.1 bar (60 psi) 80 5.5 bar (80 psi)

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

NOTE: Additional seal options available. Consult factory.

#### **Model Options**

#### HCV12-20-H-J-R

#### H Line Body

CODE	DESCRIPTION
0	No Body

#### J Seal

CODE	DESCRIPTION
Ν	Buna-N
V	Fluorocarbon
U	PPDI Urethane

### **R** Spring

CODE	DESCRIPTION
5	5 psi Bias Spring
25	25 psi Bias Spring
30	30 psi Bias Spring
40	40 psi Bias Spring
50	50 psi Bias Spring
60	60 psi Bias Spring
80	80 psi Bias Spring