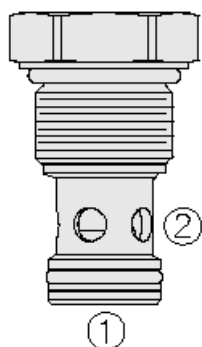
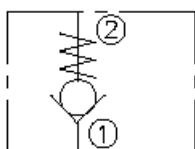




Overview



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

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)	- Note: At 350 bar (5075 psi)
Maximum internal leakage	0.25 ml/min (5 drops/min)	

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)	

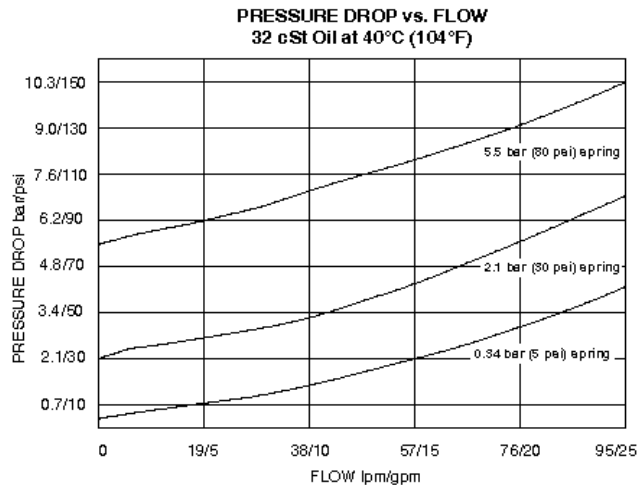
Operating Parameters

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

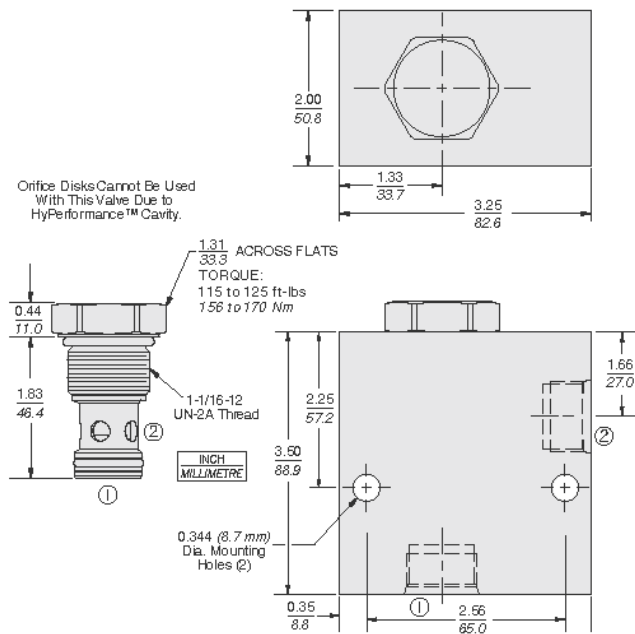
Properties

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

Performance



Dimensions



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)	- Note: Steel/ductile iron cavity - Note: Aluminum cavity
Orientation restriction	None	

Accessories

Seal kit	SK12-2N-T SK12-2V-T SK12-2HV-T SK12-2U-O	- Note: Buna N - Note: Fluorocarbon - Note: Fluorocarbon - Note: Urethane
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Order Code

HCV12-20 -

Porting

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)
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 PPDl 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
N	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