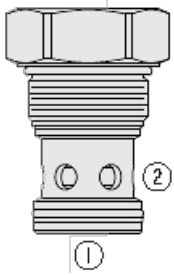
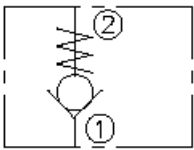




Overview



Symbol



Description

The HCV42-M20 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.
- 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	303 lpm (80 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

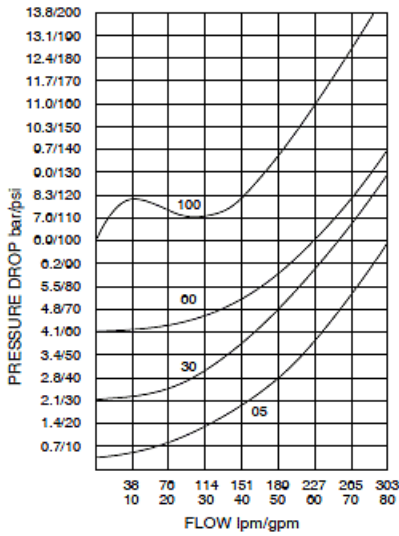
Properties

Unit weight	0.68 kg (1.50 lb)
Internal wetted surface area	300 cm ² (46.5 in ²)

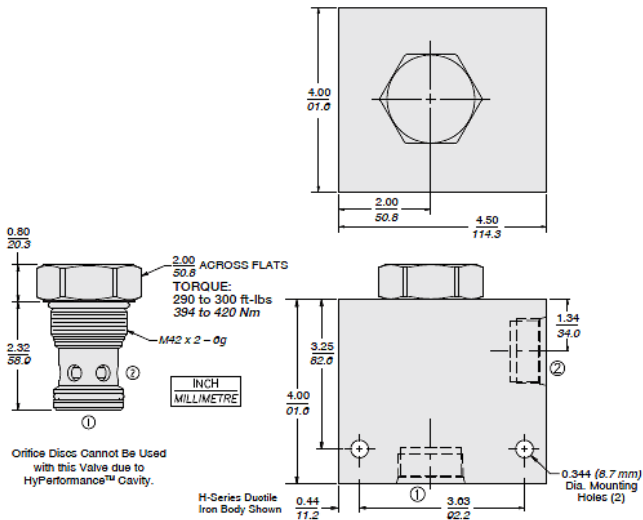


Performance

PRESSURE DROP vs. FLOW
for selected Spring Code Options
32 cSt/150 sus oil at 40°C (104°F)



Dimensions



Installation Specifications

Cavity	HVC42-m2	
Orientation restriction	None	
Cartridge installation torque	394 to 420 N-m (290 to 310 ft-lb) 298 to 311 N-m (220 to 230 ft-lb)	- Note: Steel/ductile iron cavity - Note: Aluminum cavity

Accessories

Seal kit	SK42-M2N-M SK42-M2V-M SK42-M2U-O	- Note: Buna N - Note: Fluorocarbon - Note: Urethane
Housings		



Order Code

HCV42-M20 - - -

Porting		Bias Spring Value	
Cartridge Only	0	5	0.35 bar (5 psi)
SAE 20	20HT	15	1.0 bar (15 psi)
1-1/4 in. BSP*	10HB	30	2.1 bar (30 psi)
*BSP Body; U.K. Mfr. Only		60	4.1 bar (60 psi)
		100	6.9 bar (100 psi)
Seals		U PPDl Urethane — Recommended for pressures above 241 bar (3500 psi)	

POSITION	CODE	DESCRIPTION
		HCV42-M20-H-J-R
H		Line Body
H	0	No Body
H	20HT	Ductile Iron SAE 20
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	U	PPDI Urethane
R		Spring
R	5	5 psi Bias Spring
R	15	15 psi Bias Spring
R	30	30 psi Bias Spring
R	60	60 psi Bias Spring
R	100	100 psi Bias Spring