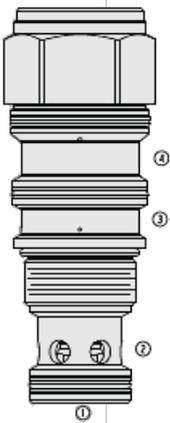




## Overview



### Description

The HPC42-J48 is a high pressure, 2-way, bi-directional, pilot-to-open, balanced poppet-type, screw-in, cartridge style, hydraulic directional element designed to function as a load holding or blocking valve in applications requiring low internal leakage.

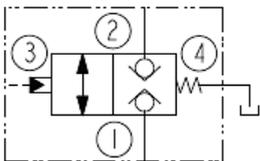
### Operation

In the unpiloted state, the valve blocks flow from ports 1 to 2 bi-directionally. On remote pilot signal at port 3, the valve shifts to allow flow from ports 1 to 2 bi-directionally. The spring chamber is vented to port 4 intended to be connected to tank for lubrication of internal parts. Pressure at port 4 will directly affect the pilot pressure required to shift the valve and must be added. The hydraulically balanced poppet will allow ports 1 and 2 to be fully pressurized without affecting required pilot pressure to actuate the valve. With zero pressure at port 4 the valve will fully shift with a minimum pilot pressure of 200 psi [14 bar].

### Features

- Bi-directional flow.
- Balanced poppet.
- Low internal leakage.
- 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)	- <b>Note:</b> 10% cycle life
Proof pressure	690 bar (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

### Flow Ratings

Flow rating	380 lpm (100 gpm)	
Maximum internal leakage	15 drops/min	- <b>Note:</b> At 500 psi [35 bar] and 5075 psi [350 bar] between ports 1 and 2 zero from ports 3 and 4

### Other Ratings

Cycle life	Two million cycles (one million in each flow direction)
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### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> 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

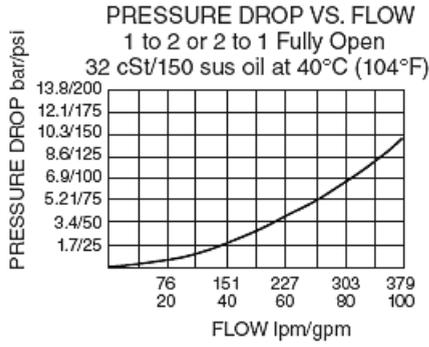
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

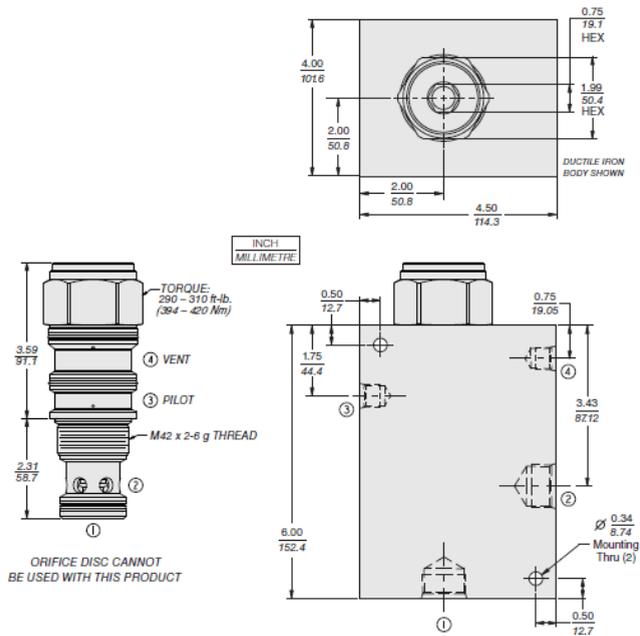
Unit weight	1.50 kg (3.30 lb)
Internal wetted surface area	450 cm <sup>2</sup> (70 in <sup>2</sup> )



## Performance



## Dimensions



## Installation Specifications

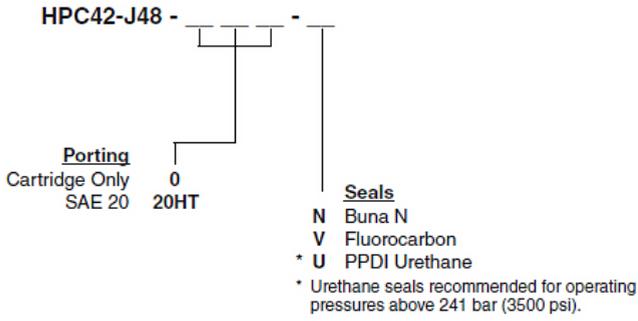
Cavity	HVC42-j4	
Cartridge installation torque	394 to 420 N-m (290 to 310 ft-lb)	- <b>Note:</b> Steel/ductile iron cavity
Orientation restriction	None	

## Accessories

Seal kit	SK42-J4N-BBM	- <b>Note:</b> Buna N
	SK42-J4V-BBM	- <b>Note:</b> Fluorocarbon
	SK42-J4U-OOO	- <b>Note:</b> Urethane



**Order Code**



**Model Options**

**HPC42-J48-H-J**

**H Line Body**

CODE	DESCRIPTION
0	No Body
20HT	Ductile Iron SAE 20

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
U	PPDI Urethane