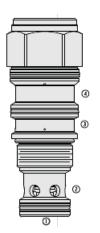
Overview



Description

The HPC42-J49 is a high pressure, 2-way, bi-directional, pilot-to-close, balanced poppettype, screw-in, cartridge style, hydraulic directional element designed to function as a load holding or blocking valve in applications requiring low internal leakage.

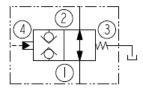
Operation

In the unpiloted state, the valve allows flow from ports 1 to 2 bi-directionally. On remote pilot signal at port 4, the valve shifts to block flow from ports 1 to 2 bi-directionally. The spring chamber is vented to port 3 intended to be connected to tank for lubrication of internal parts. Pressure at port 3 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 3 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

Pr	es	S	ur	<u>e l</u>	<u>Ra</u>	ti	n	q	S

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

1380 bar (20000 psi) Burst pressure

Flow Ratings

380 lpm (100 gpm) Flow rating

15 drops/min - **Note**: At 500 psi [35 bar] and 5075 psi [350 bar] between ports 1 and 2 zero from ports 3 and 4 Maximum internal leakage

Other Ratings

Cycle life 2.0 million cycles (1 million in each direction) -

35 bar (500 psi) 345 bar (5000 psi)

Temperature Ratings

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

-40 to 70 °C (-40 to 160 °F) Storage temperature

-40 to 90 °C (-40 to 194 °F) Ambient temperature

Operating Parameters

Mineral based or synthetic hydraulic fluid with lubricating properties Fluids

7.4 to 420 cSt Fluid viscosity range

Maximum operating contamination 18/16/13 per ISO 4406

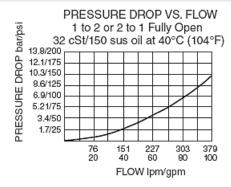
level

Properties

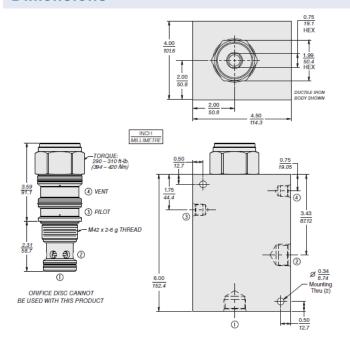
1.50 kg (3.30 lb) Unit weight 450 cm² (70 in²) Internal wetted surface area

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Performance



Dimensions



Installation Specifications

Cavity HVC42-j4

Cartridge installation torque 394 to 420 N-m (290 to 310 ft-lb) - Note: Steel/ductile iron cavity

Orientation restriction None

Accessories

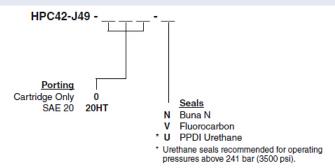
Seal kit SK42-J4N-BTM - Note: Buna N - Note: Fluorocarbon

SK42-J4U-OOO - Note: Urethane

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Order Code



Model Options

HPC42-J49-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

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