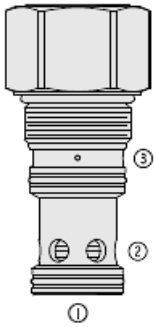




Overview



Description

The HEP42-S35 is a high pressure, spool type, screw-in, cartridge style, hydraulic directional element, with multi-function potential when used with other directional, pressure or flow control devices.

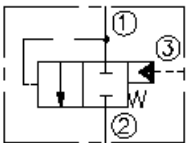
Operation

The valve is a spring-biased blocking valve which will shift to allow full flow from port 1 to 2 only when the pressure at port 1 exceeds the cumulative pressure of port 3, plus the bias spring pressure value. The HEP42-S35 is a pilot-to-close directional element. With no pressure at port 3 flow will be allowed from port 1 to 2 once the bias spring force is overcome with pressure at port 1.

Features

- Multiple function/application potential.
- Low pressure drop.
- 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)	- Note: 10% cycle life
	420 bar (6090 psi)	
Proof pressure	690 bar (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

Flow Ratings

Flow rating	379 lpm (100 gpm)	
Maximum internal leakage	164 ml/min (10 in ³ /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

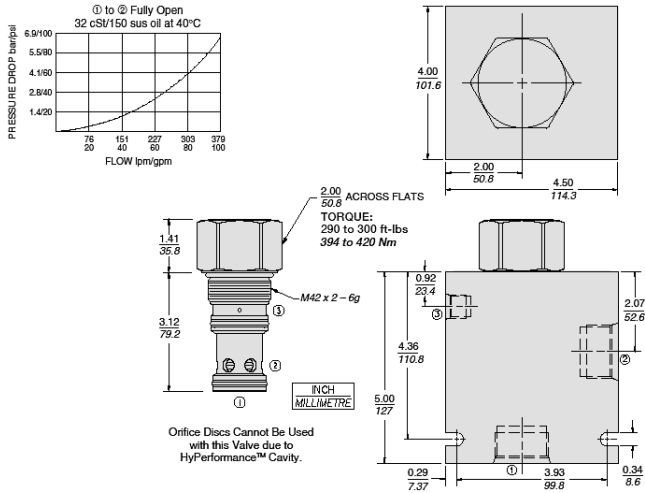
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

Unit weight	1.04 kg (2.30 lb)
Internal wetted surface area	484 cm ² (75 in ²)



Performance



Installation Specifications

Cavity	HVC42-s3	
Cartridge installation torque	394 to 420 N-m (290 to 310 ft-lb)	- Note: Steel/ductile iron cavity
	298 to 311 N-m (220 to 230 ft-lb)	- Note: Aluminum cavity
Orientation restriction	None	

Accessories

Seal kit	SK42-S3N-MM	- Note: Buna N
	SK42-S3V-MM	- Note: Fluorocarbon
	SK42-S3U-OO	- Note: Urethane



Order Code

HEP42-S35 - - -

<u>Porting</u>		<u>Bias Spring Value</u>	
Cartridge Only	0	20	1.4 bar (20 psi)
SAE 20	20HT	50	3.4 bar (50 psi)
1-1/4 in. BSP*	10HB	80	5.5 bar (80 psi)
*BSP Body; U.K. Mfr. Only		175	12.1 bar (175 psi)

Seals

U PPDI Urethane

NOTE: Urethane seals recommended for operating pressures above 241 bar (3500 psi).

NOTE: Consult factory for additional seal options.

Model Options

HEP42-S35-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
20	20 psi Bias Spring
50	50 psi Bias Spring
80	80 psi Bias Spring
175	175 psi Bias Spring