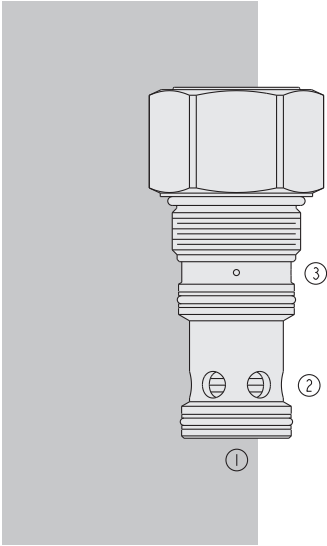


HEP42-S38 HyPerformance™ Piloted Poppet-Type



DESCRIPTION

A high-pressure poppet-type, screw-in, cartridge-style, spring-biased, bi-directional blocking-type hydraulic directional element with multi-function potential when used with other directional, pressure, or flow control devices.

OPERATION

The **HEP42-S38** is a spring-biased poppet valve which will block 1 to 2 or 2 to 1 until pressure at 1 or 2 exceeds the cumulative pressure at 3 and bias spring. With no pressure at 3, flow will be allowed from 1 to 2 or 2 to 1 once the bias spring force is overcome with pressure at 1 or 2. When the element is in the closed state, the ratio of areas 1 and 2 is 1:1, and the ratio of areas 1 or 2 to 3 is 1:2.

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%.

RATINGS

Operating Pressure: 350 bar (5075 psi); 10% cycle life: 420 bar (6090 psi)

Note: All HyPerformance products are tested for 900K cycles at 350 bar and 100K at 420 bar.

Fatigue Rating: 2 million cycles at 420 bar (6090 psi)

Proof Pressure: 690 bar (10,000 psi)

Burst Pressure: 1380 bar (20000 psi)

Flow: Up to 284 lpm (75 gpm)

Internal Leakage: 12 drops/minute max. at 350 bar (5075 psi)

Operating Temperature: -54 to 107°C (-65 to 225°F) with Urethane seals

Ambient Temperature: -40 to 90°C (-40 to 194°F)

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

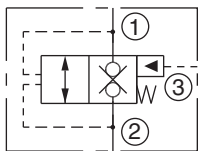
Installation: No restrictions; See page 9.020.1

Cavity: HVC42-S3; See page 9.142.1

Cavity Tool: HCT42-S3XX; See page 8.600.1

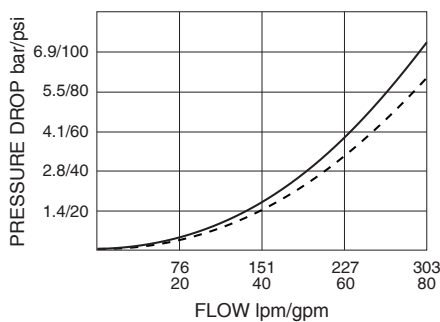
Seal Kit: SK42-S3U-OO with Urethane seals; See page 8.650.1

ISO SYMBOL



PERFORMANCE (Cartridge Only)

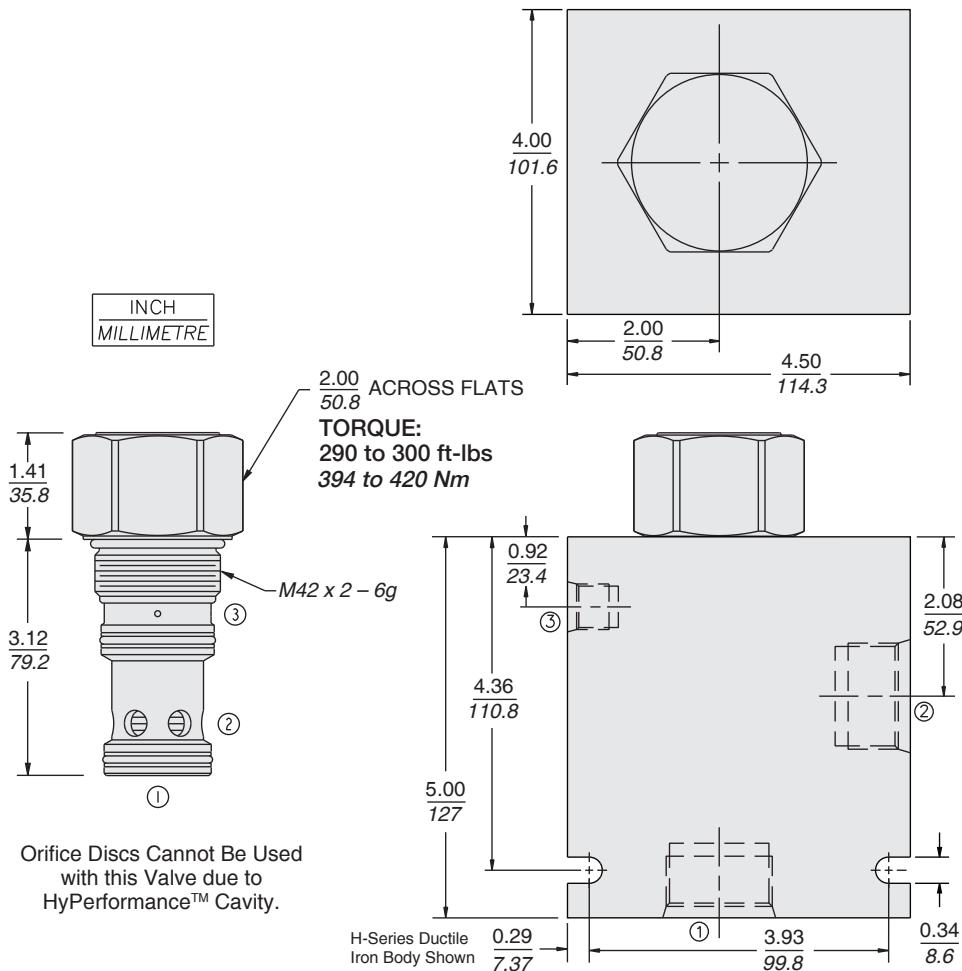
1 to 2 - - - - ; 2 to 1 —
Fully Open, with Port 3 Vented
32 cSt/150 sus oil at 40°C (104°F)



Logic Element

HEP42-S38

DIMENSIONS



MATERIALS

Cartridge: Weight: 1.04 kg. (2.30 lbs.)
Steel with hardened work surfaces.
Zinc-nickel plated exposed surfaces.
PPDI Urethane seals with no back-up rings standard.

Ported Body: Weight: 10.68 kg. (23.56 lbs.); H-series ductile iron standard. Rated to 345 bar (5000 psi). See page 8.042.1.

TO ORDER

HEP42-S38 -

Porting

Cartridge Only **0**
SAE 20 Ductile Iron **20HT**
1-1/4" BSP Ductile Iron* **10HB**
*BSP body U.K. Mfr. Only

Bias Spring Value

40 2.8 bar (40 psi)
80 5.5 bar (80 psi)
160 11.0 bar (160 psi)

Seals

U PPDI Urethane — Recommended for pressures above 241 bar (3500 psi)

NOTE: Consult factory for additional seal options.