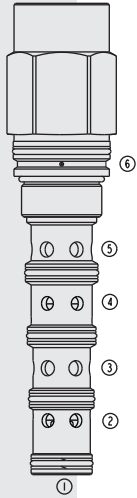
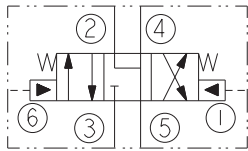


# HPD42-S67D HyPerformance™ Piloted 4-Way Spool



**ISO SYMBOL**



**DESCRIPTION**

A high-pressure, screw-in, cartridge-style, pilot-operated, spool-type, hydraulic directional valve.

**OPERATION**

When the **HPD42-S67D** is in neutral position, port 3 is blocked and flow is allowed between ports 2, 4 and 5. When remote pilot signal at 1 exceeds force of bias spring, the spool shifts to allow flow from 3 to 4 and from 2 to 5. When remote pilot signal at 6 exceeds force of bias spring, the spool shifts to allow flow from 3 to 2 and from 4 to 5.

**FEATURES**

- Hardened spool and cage for long life.
- Flows up to 379 lpm/100 gpm.
- 1000 hour salt spray tested.
- Vibration tested (3-axis) to 20G RMS.
- HyPerformance™ product tested to rigorous standards of NFPA specification T2.6.1.
- HyPerformance™ valve tested at 90% verification level and 99% assurance.

**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.

**Burst Pressure:** 1380 bar (20000 psi)

**Flow:** 189 lpm (50 gpm); See Performance Chart

**Maximum Internal Leakage:** at 350 bar (5075 psi): 820 ml/minute (50 cu. in./minute)

**Operating Temperature:** -54° to 107°C (-65° to 255° F) with PPDI 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

Note: Adaptor lock kit HF P/N 4207540 (sold separately) may be required when pilot pressure exceeds 35 bar (500 psi).

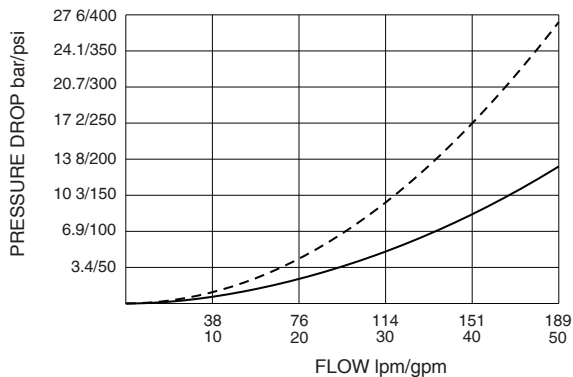
**Cavity:** HVC42-S6; See page 9.142.1

**Cavity Tool:** HCT42-S6XX; See page 8.600.1

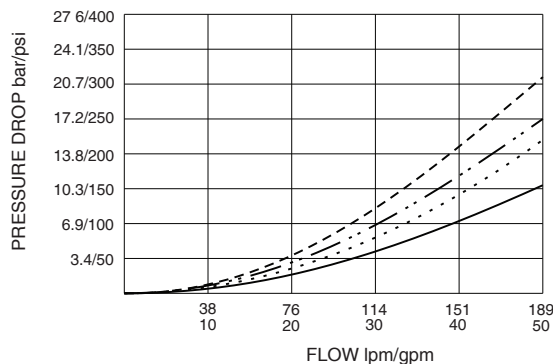
**Seal Kits:** HSK42-S6U-T0000 (PPDI Urethane). See page 8.650.1.

**PERFORMANCE** (Cartridge Only)

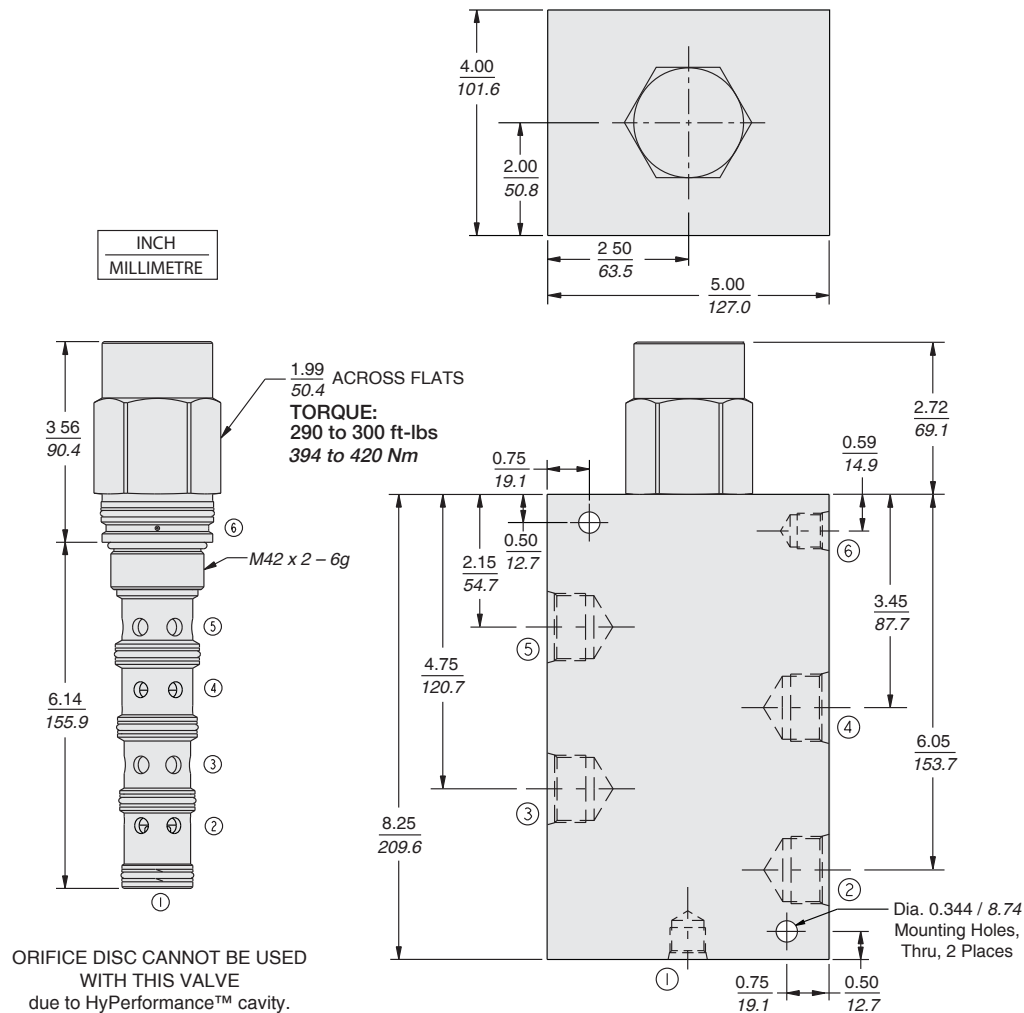
Pressure Drop vs Flow (Neutral)  
2 to 5 - - - - - 4 to 5 ———  
32 cSt/150 sus oil at 40°C



Pressure Drop vs Flow (Piloted)  
2 to 5 - - - - - 3 to 2 — · · —  
3 to 4 · · · · · 4 to 5 ———  
32 cSt/150 sus oil at 40°C



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 2.0 kg. (4.5 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces. Urethane seals without backup rings standard.

**Ported Body:** Weight 16.61 kg (36.62 lbs).  
HyPerformance™ ductile iron (code 'D') standard. Rated to 354 bar (5000 psi).  
See page 8.042.1

## TO ORDER

HPD42-S67D - - -

**Porting**  
Cartridge Only **0**  
1-1/4 in. BSP **10 BD**  
SAE 20 **20 TD**  
\*BSP Body; U.K. Mfr. Only

**Bias Spring**  
**170** 11.7 bar (170 psi)

Optional bias springs considered on OEM request.

**Seals**  
**N** Buna N (Std.)  
**V** Fluorocarbon  
**\*U** PPDI Urethane  
**NS** Buna N w/Sealed Spool  
**VS** Fluorocarbon w/Sealed Spool  
**US** PPDI Urethane w/Sealed Spool

Consult factory for other available seal options.

\*PPDI urethane seals recommended for operating pressures above 241 bar (3500 psi)