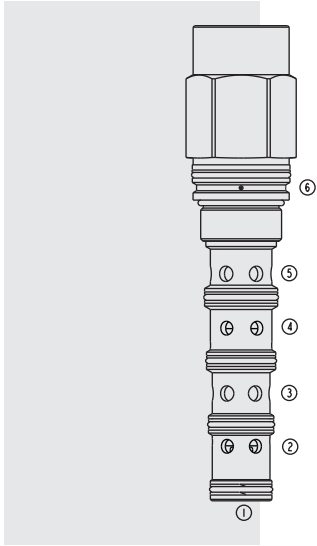


# HPD42-S61 HyPerformance™ Piloted 4-Way Spool



## DESCRIPTION

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

## OPERATION

When in neutral the **HPD42-S61** allows flow between ports 2 and 3, and between ports 4 and 5. On remote pilot signal at 1, the valve's spool shifts to allow flow between 3 and 4 while blocking 2 and 5. The spring chamber is vented to the tank through port 6. The vented spring chamber allows the valve to be fully pressurized at ports 1, 2, 3, 4 and 5 without affecting required pilot pressure. Pressure at port 6 will increase the required pilot pressure at a 1:1 ratio.

## FEATURES

- Hardened spool and cage for long life.
- All HyPerformance™ products are tested to the rigorous standards of the NFPA specification T2.6.1 and 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.

**Proof Pressure:** 690 bar (10000 psi)

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

**Flow Rating:** Up to 189 lpm (50 gpm) with seal options N, V and U with no flow restriction; up to 189 lpm (50 gpm) with seal options NS, VS and US with flow restriction from ports 2 to 3 of 132 lpm (35 gpm) maximum. See Performance Chart

**Maximum Internal Leakage:** at 350 bar (5075 psi) with 32 cSt oil:

HPD42-S61: 490 ml/minute (30 cu. in./minute)

HPD42-S61N: 640 ml/minute (40 cu. in./minute)

**Temperature:** -40 to 100°C (-40 to 212°F) with Buna N seals; -26 to 204°C (-15 to 400°F) with Viton seals; -54 to 107°C (-65 to 225°F) with Urethane seals

**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

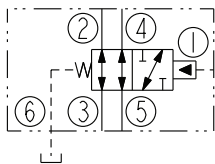
**Cavity:** HVC42-S6; See page 9.142.1

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

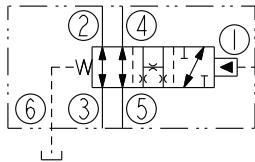
**Seal Kit:** HSK42-S6X-BMMMM (Buna N), HSK42-S6V-BMMMM (Viton), HSK42-S6U-0000 (Urethane); See page 8.650.1

## SYMBOL

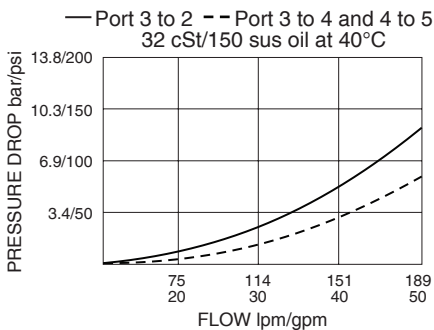
### ISO:



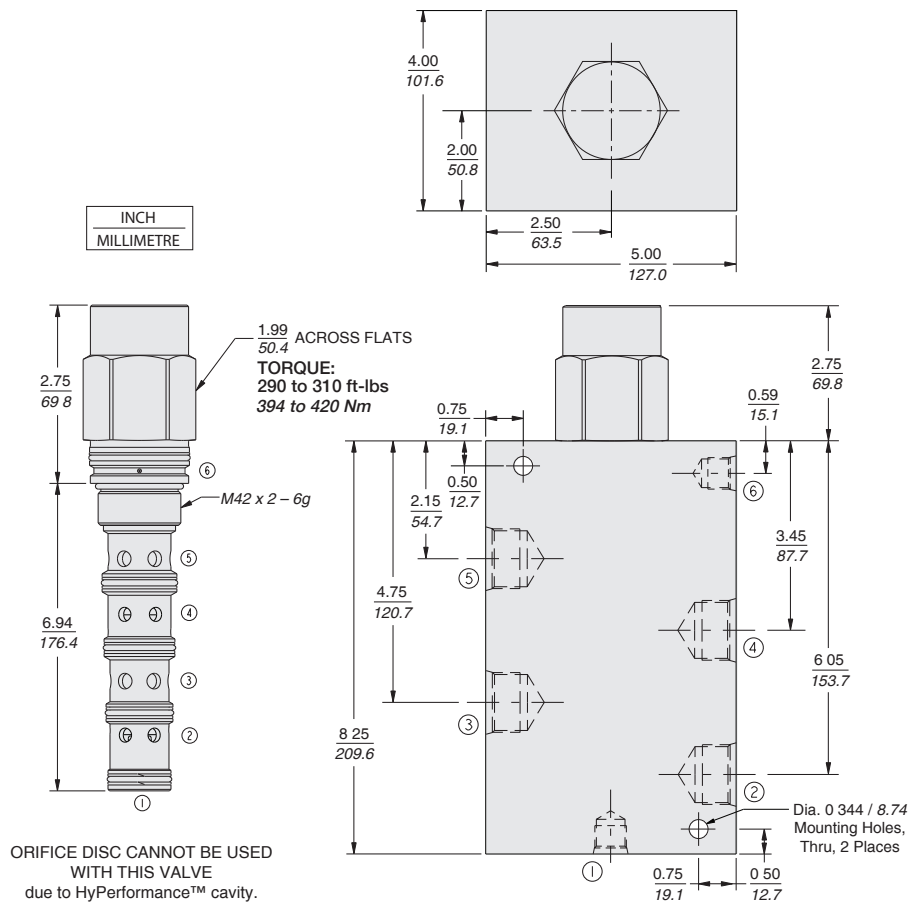
### OPEN TRANSITION OPTION:



## PERFORMANCE (Cartridge Only)



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 2.0 kg. (4.3 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.

**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 Consult factory.

## TO ORDER

<b>HPD42-S61 -</b>		-	-	-	-
<b>Option</b>	None	<b>Blank</b>			
Open Transition		<b>N</b>			
<b>Porting</b>					
Cartridge Only		<b>0</b>			
1-1/4 in. BSP		<b>10 BD</b>			
SAE 20		<b>20 TD</b>			
*BSP Body; U.K. Mfr. Only					
				<b>Bias Spring</b>	
				<b>160</b>	11.0 bar (160 psi)
				<b>Seals</b>	
				<b>N</b>	Buna N (Std.)
				<b>V</b>	Fluorocarbon
				<b>U</b>	Urethane
				<b>NS</b>	Buna N w/Sealed Spool 1 to 2 only
				<b>VS</b>	Fluorocarbon w/Sealed Spool 1 to 2 only
				<b>US</b>	Urethane w/Sealed Spool 1 to 2 only

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

Consult factory for additional seal options.