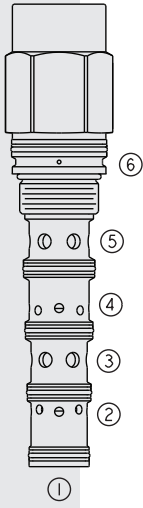


HPE42-S67C HyPerformance™ Proportional, Piloted

U.S. Patent
6,554,014



DESCRIPTION

A high pressures, screw-in, cartridge-style, proportional, spring-centered, pilot-operated spool-type hydraulic directional valve.

OPERATION

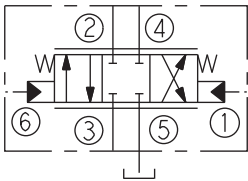
When the HPE42-S67C is in neutral position all ports are blocked. When the remote pilot signal at 1 exceeds the force of the bias spring, the spool shifts proportionally to the applied pilot pressure to allow flow from 3 to 4 through a load such as a hydraulic cylinder or motor, and from 2 to 5 and to tank. Port 5 is to be used as a tank port only with maximum pressure of 69 bar (1000 psi). On remote pilot signal at port 6 the spool shifts proportionally to the applied force in the opposite direction, thus reversing the flow direction.

The valve's spool is symmetrical, providing meter-in and meter-out control.

FEATURES

- Hardened spool and cage for long life.
- Cost-effective cavity.
- Excellent metering characteristics.
- Good linearity.
- All HyPerformance™ products are tested to the rigorous standards of NFPA specification T2.6.1.
- All HyPerformance™ valves are tested at a verification level of 90% and an assurance of 99%.

ISO SYMBOL



RATINGS

Maximum Operating Pressure: Ports 2, 3, 4 (work): 350 bar (5075 psi);
Ports 2, 3, 4 at 10% cycle life: 420 bar (6090 psi);
Ports 1 and 6 (pilot): 35 bar (500 psi); Port 5 (tank): 69 bar (1000 psi)

Flow: 170 lpm (45 gpm)

Internal Leakage: 590 ml/minute (36 cu. in./minute) at 350 bar (5075 psi)

Temperature: -54°C to 107°C (-65°F to 225°F) with PPDI 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

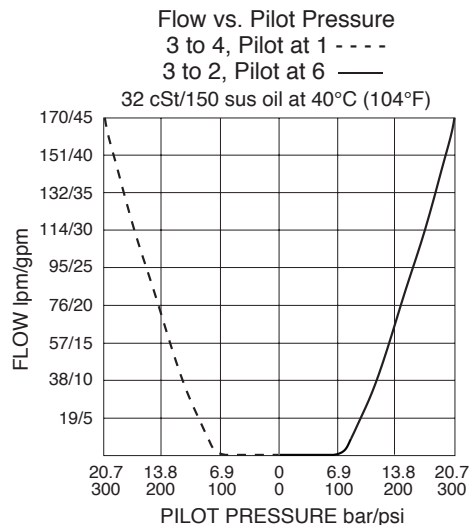
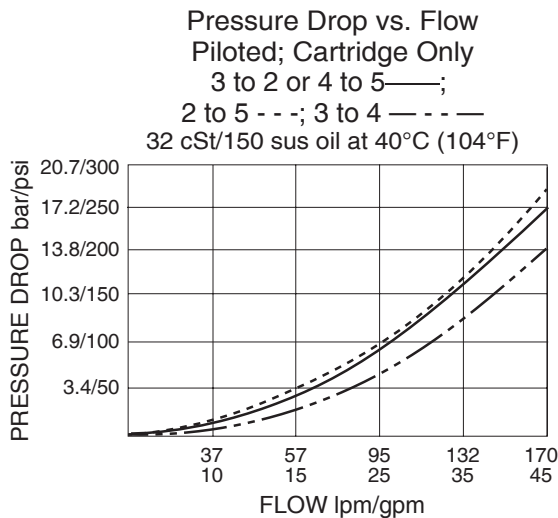
Installation: No restrictions; See page 9.020.1

Cavity: HVC42-S6 Variation A; See page 9.142.1

Cavity Tool: HCT42-S6; See page 8.600.1

Seal Kit: HSK42-S6U-0000; See page 8.650.1

PERFORMANCE (Cartridge Only)

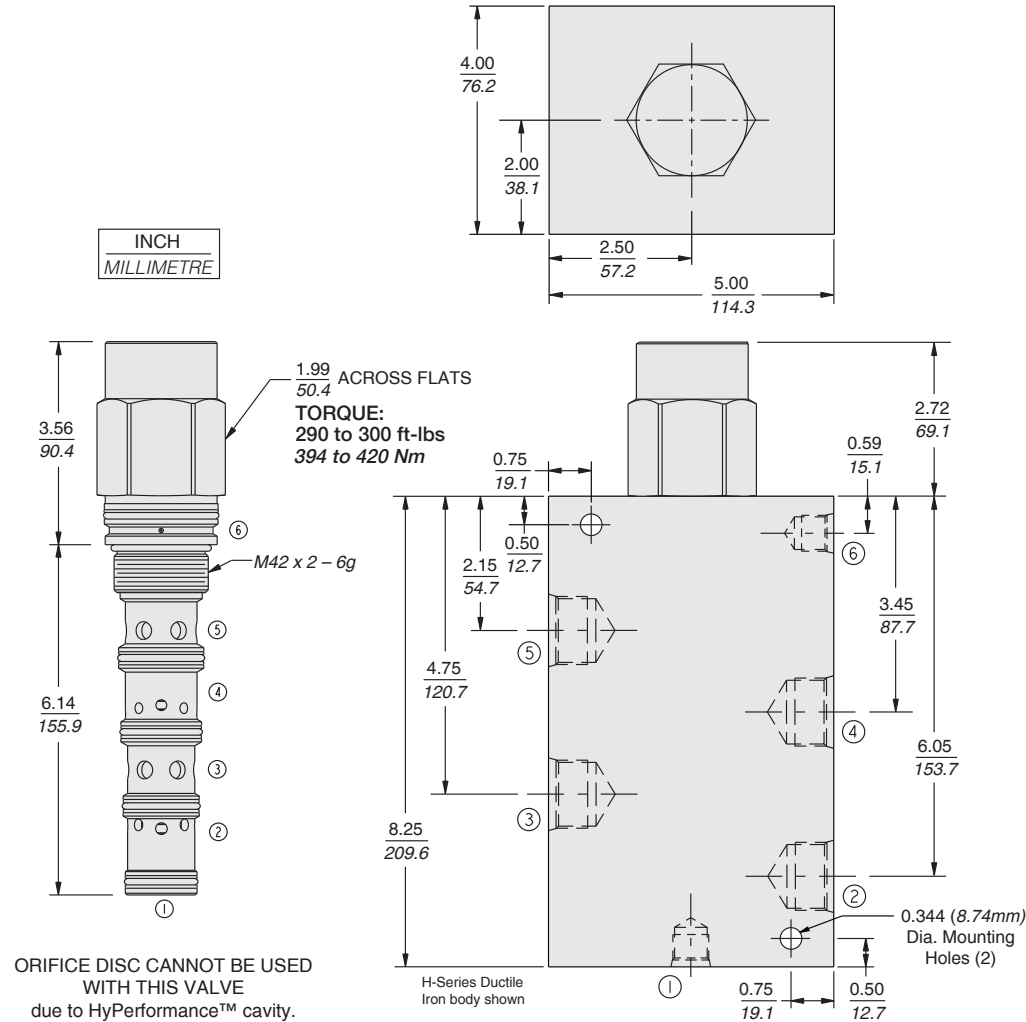


Directional Valve, Meter In/Out

HPE42-S67C

DIMENSIONS

U.S. Patent 6,554,014



MATERIALS

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

Ported Body: Weight: 16.61 kg. (36.62 lbs.) H-series ductile iron standard. Rated to 345 bar (5000 psi). See page 8.042.1.

TO ORDER

HPE42-S67C - -

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

Seals
***U** PPDI Urethane

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

NOTE: Consult factory for additional seal options.