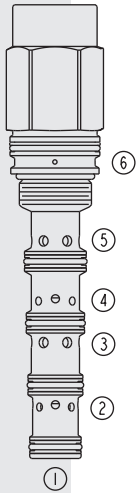


# HPE16-S67C HyPerformance™ Proportional,

U.S. Patent  
6,554,014



## DESCRIPTION

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

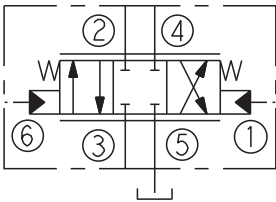
## OPERATION

When the **HPE16-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 tank port only with maximum pressure of 69 bar (1000 psi). On remote pilot signal at 6 the spool shifts proportionally to the applied force in the opposite direction, this 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 the NFPA specification T2.6.1.
- All HyPerformance™ valves are tested at a verification level of 90% and an assurance of 99%.

## SYMBOLS



## RATINGS

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

**Proof Pressure:** 690 bar (10000 psi); **Burst Pressure:** 1380 bar (20000 psi)

**Flow:** 95 lpm (25 gpm)

**Internal Leakage:** 330 ml/minute (20 cu. in./minute) at 350 bar (5075 psi)

**Temperature:** -54° to 107°C (-65° 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

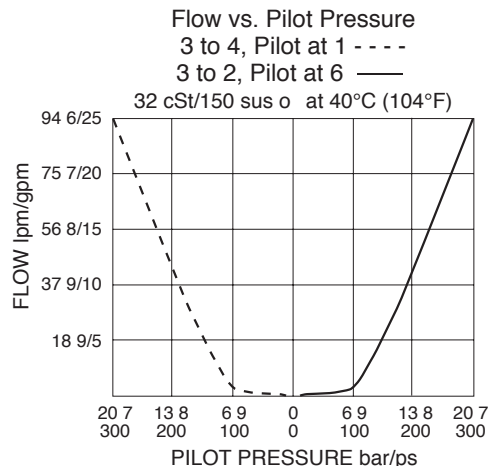
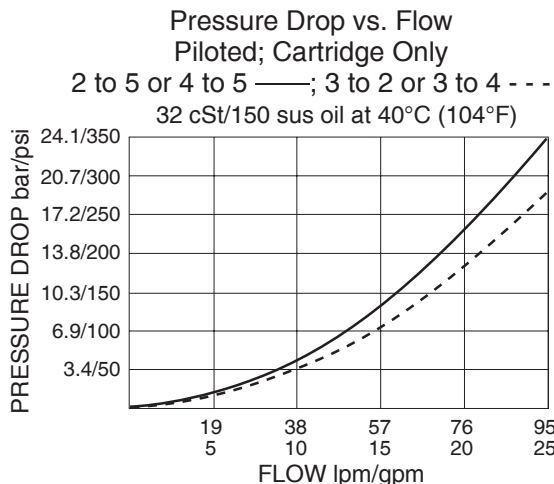
**Installation:** No restrictions; See page 9.020.1

**Cavity:** HVC16-S6; See page 9.116.1

**Cavity Tool:** HCT16-S6; See page 8.600.1

**Seal Kit:** HSK16-S6U-0000 (Urethane); See page 8.650.1

## PERFORMANCE (Cartridge Only)

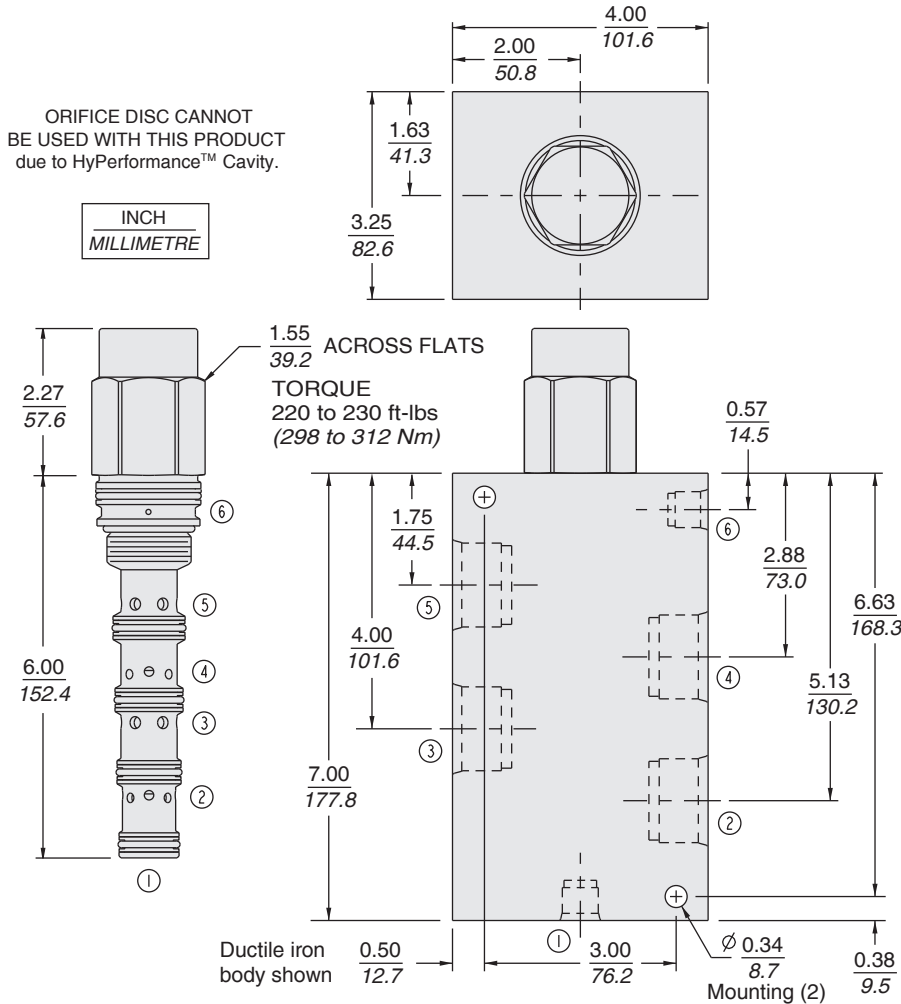


# Pilot Operated

# HPE16-S67C

## DIMENSIONS

U.S. Patent 6,554,014



## MATERIALS

**Cartridge:** Weight: 1.1 kg. (2.4 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
Urethane seals without back-up rings standard.

**Ported Body:** Weight: 9.1 kg. 20.1 lbs.  
HyPerformance™ ductile iron (code 'D') standard. Rated to 345 bar (5000 psi).  
See page 8.016.1.

## TO ORDER

HPE16-S67C - -

### Porting

Cartridge Only 0  
SAE 16 16TD  
1" BSP\* 8BD

### Seals

\*U PPDI Urethane

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

NOTE: Consult factory for additional seal options.