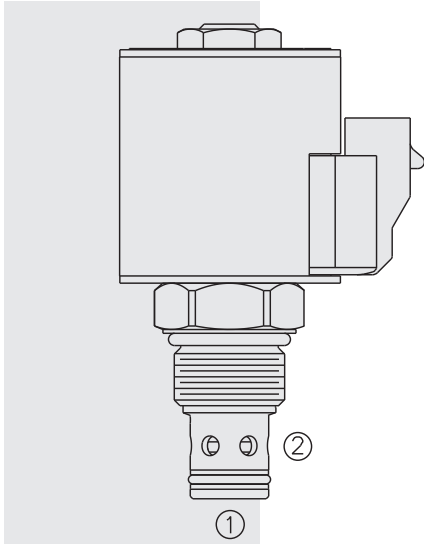
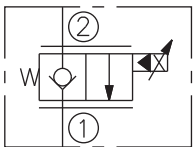


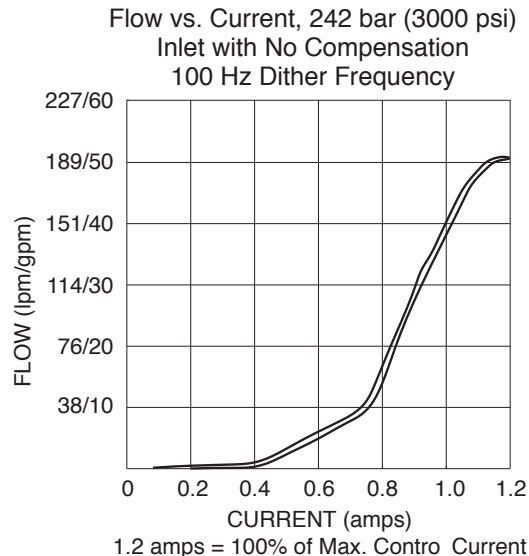
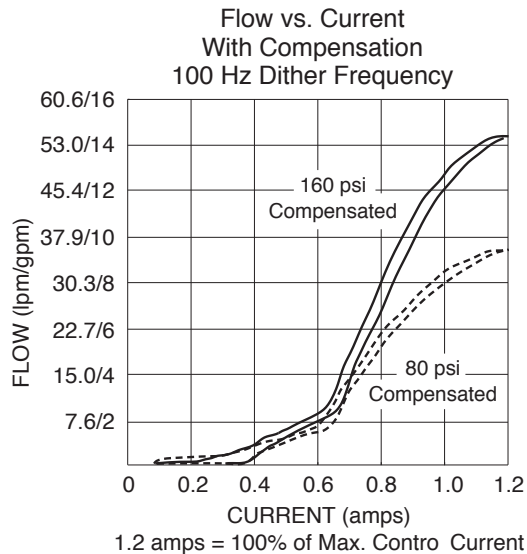
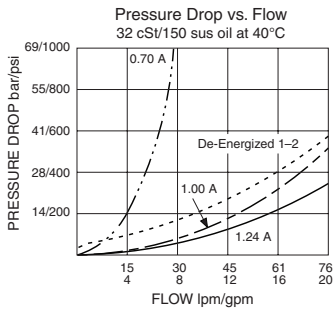
# HSP10-20 HyPerformance™ Proportional, Poppet, 2-Way,



## ISO SYMBOL



## PERFORMANCE



## DESCRIPTION

A high pressure proportional solenoid-operated, two-way, piloted, poppet-type, normally closed, screw-in hydraulic cartridge valve for low-leakage blocking and load-holding applications.

## OPERATION

When de-energized, the HSP10-20 blocks flow from ports 2 to 1. In this mode, the cartridge will allow flow from ports 1 to 2 after overcoming the spring forces (see Performance graph). When energized, the valve will allow flow proportional to the applied current from ports 2 to 1 while severely restricting flow from ports 1 to 2.

**Note: If low voltage is expected on the machine, 12 or 24 volt systems will require the use of 10 volt or 20 volt coils respectively. See "SP Valves and Coil Operating Parameters," page 2.002.1.**

## FEATURES

- Industry-common cavity.
- Efficient wet-armature construction.
- Continuous-duty rated coils.
- Waterproof E-Coils rated up to IP69K.
- Manual override option.
- 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)

**Flow Rating:** 53 lpm (14 gpm) with 11 bar (160 psi) compensation; 34 lpm (9 gpm) with 5.5 bar (80 psi) compensation

**Max. Internal Leakage:** 5 drops per minute at 350 bar (5075 psi) at port 2

**Cycle Life:** One million cycles

**Temperature:** -54° to 107°C (-65° to 225°F) with urethane seals

**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

**Filtration:** See page 9.010.1; **Installation:** No Restrictions. See page 9.020.1

**Cavity:** HVC10-2; See page 9.110.1; **Cavity Tool:** HCT10-2XX; See page 8.600.1

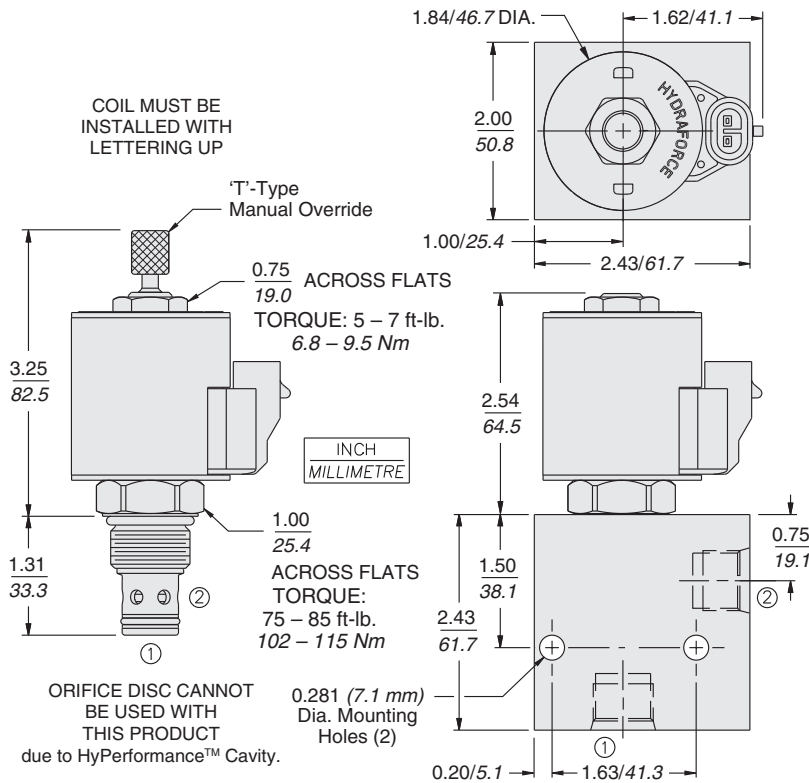
**Seal Kit:** HSK10-2U-0 Urethane; See page 8.650.1

**Coil Nut:** Part No. 4553800; for E-coils manuf. prior to 1-1-04, see page 3.400.1.

# Normally Closed

# HSP10-20

## DIMENSIONS



**Recommended Electronic Controllers:**  
See page 2.001.1 or our Electronics catalog.

## MATERIALS

**Cartridge:** Weight: 0.18 kg. (0.4 lbs.) without coil and nut. Steel with hardened work surfaces. Zinc-plated exposed surfaces. PPDl Urethane seals without back-ups standard.

**Standard Ported Body:** Weight: 1.18 kg. (2.62 lbs.) HyPerformance™ Ductile iron (code 'D') standard. Rated to 345 bar (5000 psi) See page 8.010.1.

**E-Coil:** Weight: 0.41 kg. (0.9 lbs.) Perfect wound, fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors. **Note: See page 3.400.1 for all E-Coil retrofit applications.**

## TO ORDER

