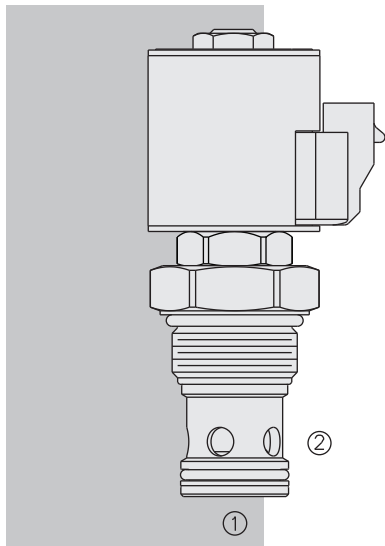


ELECTRO-PROPORTIONAL VALVES—FLOW CONTROL

HSP16-20 HyPerformance™ Poppet, 2-Way, N.C.



DESCRIPTION

A proportional solenoid-operated, 2-way, piloted, poppet-type, normally closed, screw-in hydraulic cartridge valve for low-leakage blocking and load-holding in high pressure applications requiring low internal leakage. This valve can be ordered with a linear metering option (see Performance Charts) or a manual override option.

OPERATION

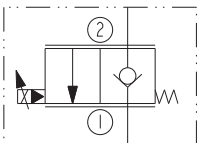
When de-energized, the **HSP16-20** blocks flow from ports 2 to 1. In this mode, the cartridge will allow flow from ports 1 to 2 after overcoming the spring forces (see performance graph). When energized, the valve will allow flow from ports 2 to 1 while severely restricting flow from ports 1 to 2.

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

- Manual override option.
- Linear metering option.
- Industry-common cavity.
- Continuous-duty rated coils.
- Waterproof E-Coils rated up to IP69K.
- All HyPerformance products are tested to NFPA specification T2.6.1, and are tested at a verification level of 90% and an assurance of 99%.

ISO SYMBOL



RATINGS

Operating Pressure: 350 bar (5075 psi); 10% Cycle Life: 420 bar (6090 psi)

Proof Pressure: 690 bar (10,000 psi)

Burst Pressure: 1380 bar (20,000 psi)

Flow Rating: 61 lpm (16 gpm) with 5.5 bar (80 psi) compensation; 102 lpm (27 gpm) with 11.0 bar (160 psi) compensation; see performance curves.

Max. Internal Leakage: 7 drops per minute at 350 bar (5075 psi) at Port 2

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: See note re: voltage under OPERATION heading. See page 9.020.1

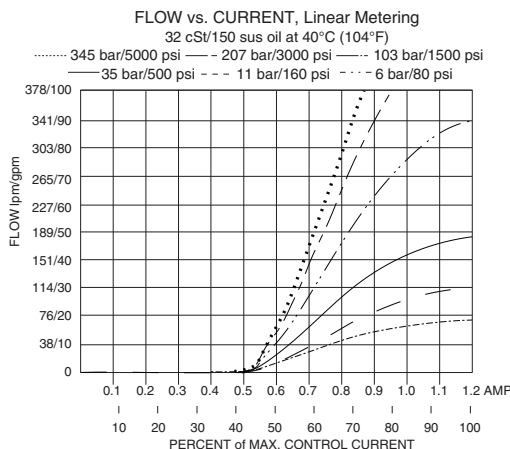
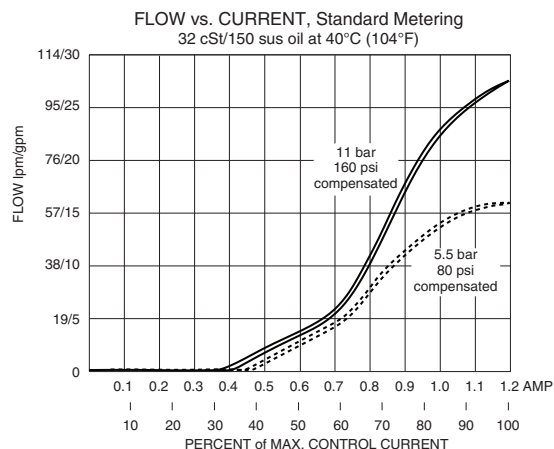
Cavity: HVC16-2; See page 9.116.1

Cavity Tool: HCT16-2XX; See page 8.600.1

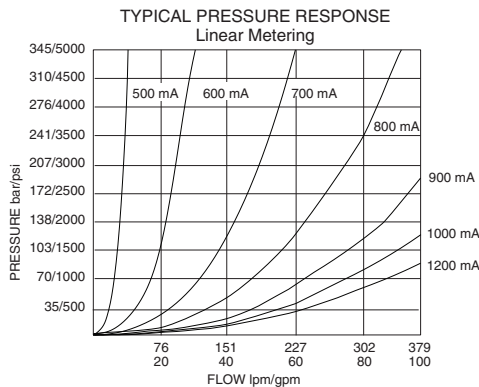
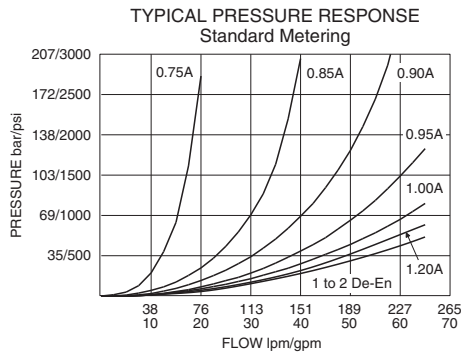
Seal Kit: SK16-2U-O; See page 8.650.1

Coil Nut: Part No. 4553800

PERFORMANCE

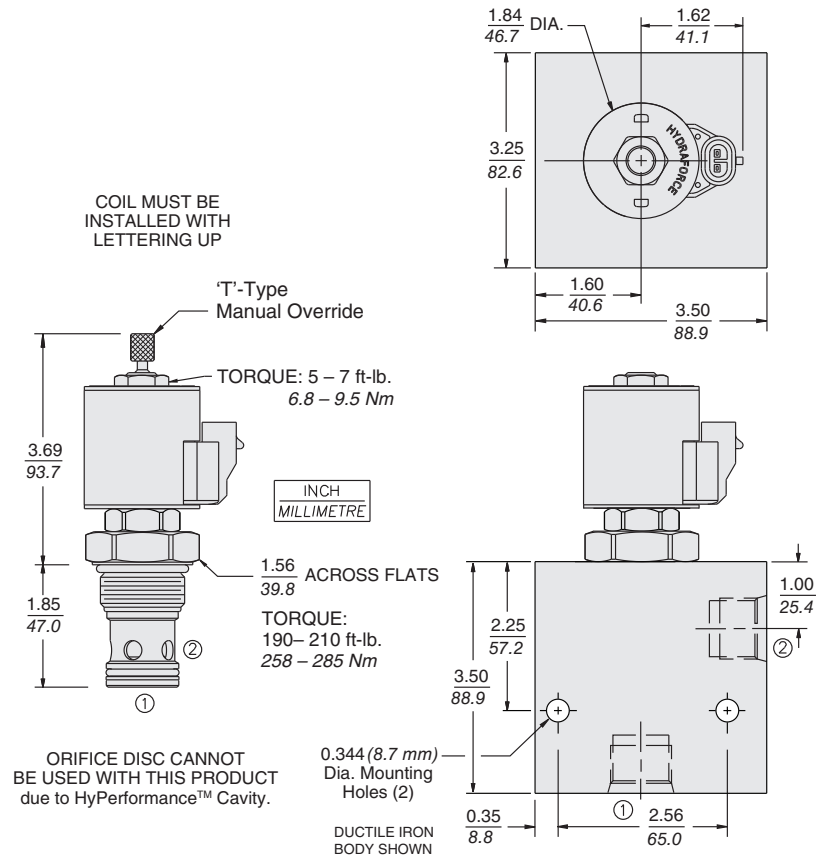


PERFORMANCE (Continued)



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

DIMENSIONS



MATERIALS

Cartridge: Weight (without Manual Override, Coil or Nut): 0.55 kg. (1.22 lbs.); (with Manual Override, without Coil or Nut) 0.56 kg. (1.24 lbs). Steel with hardened work surfaces. Zinc-plated exposed surfaces. Urethane seals without back-up rings standard.

Ported Body: Weight: 3.96 kg. (8.75 lbs.); H-Series ductile iron standard. Rated to 345 bar (5000 psi). See page 8.016.1.

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. See page 3.400.1.

TO ORDER

