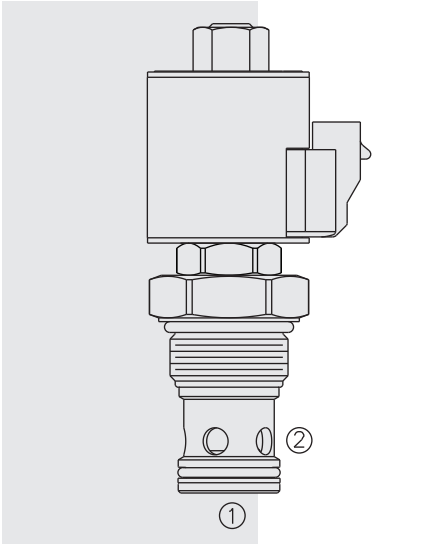


HSP16-21 HyPerformance™ Poppet, 2-Way, N. O.



DESCRIPTION

A proportional solenoid-operated, 2-way, piloted, poppet-type, normally open, screw-in hydraulic cartridge valve for low-leakage blocking in high pressure load-holding applications requiring low internal leakage.

OPERATION

When de-energized, the HSP16-21 allows flow proportional to the applied current from 2 to 1 while severely restricting flow from 1 to 2. When energized, the valve blocks flow from ports 2 to 1. In this mode, the cartridge will allow flow from 1 to 2 after overcoming the spring and actuator forces.

FEATURES

- Industry-common cavity.
- Efficient wet-armature construction.
- Continuous-duty rated coils.
- Optional waterproof E-Coils rated up to IP69K.
- 1000-hour salt-spray rated solenoid tubes.
- 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%.

RATINGS

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

Proof Pressure: 690 bar (10000 psi)

Burst Pressure: 1380 bar (20000 psi)

Flow Rating: 76 lpm (20 gpm) with 5.5 bar (80 psi) compensation; 95 lpm (25 gpm) with 11.0 bar (160 psi) compensation

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

Cycle Life: One million cycles

Operating Fluid Temperature: -54 to 107°C (-65 to 224°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

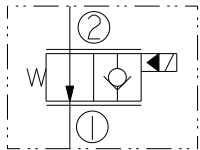
Cavity: HVC16-2; See page 9.116.1

Cavity Tool: HCT16-2XX; See page 8.600.1

Seal Kit: SK16-2U-0 (urethane); See page 8.650.1

Coil Nut: Part No. 7004400

ISO SYMBOL

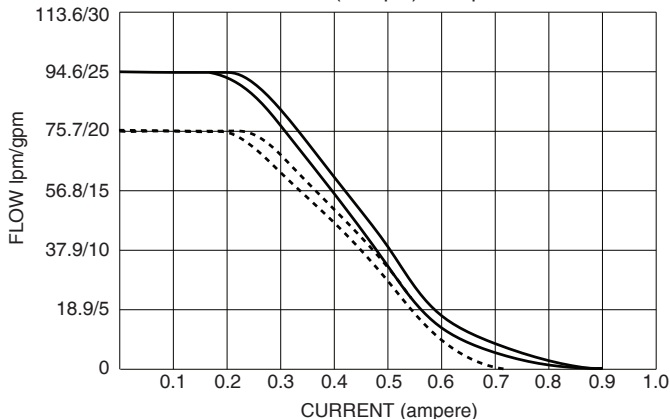


Recommended Electronic Controllers:
See page 2.001.1 or our Electronics catalog.

PERFORMANCE

FLOW vs. CURRENT

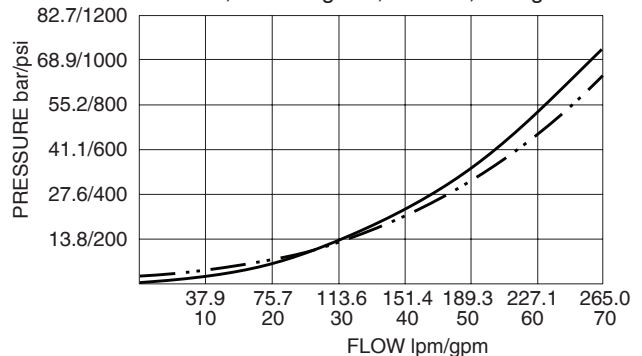
- 5.5 bar (80 psi) Compensated
- 11.0 bar (150 psi) Compensated



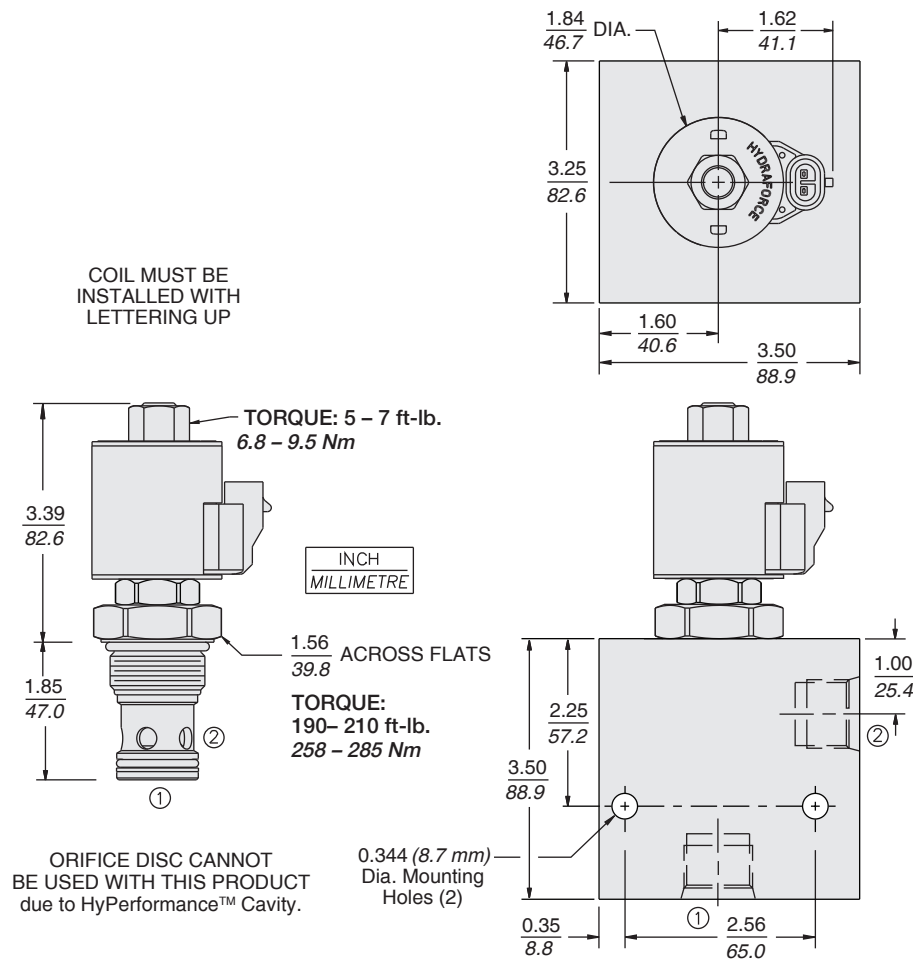
PRESSURE RESPONSE

(Cartridge only)

- 2-1, De-energized; 1-2, Energized



DIMENSIONS



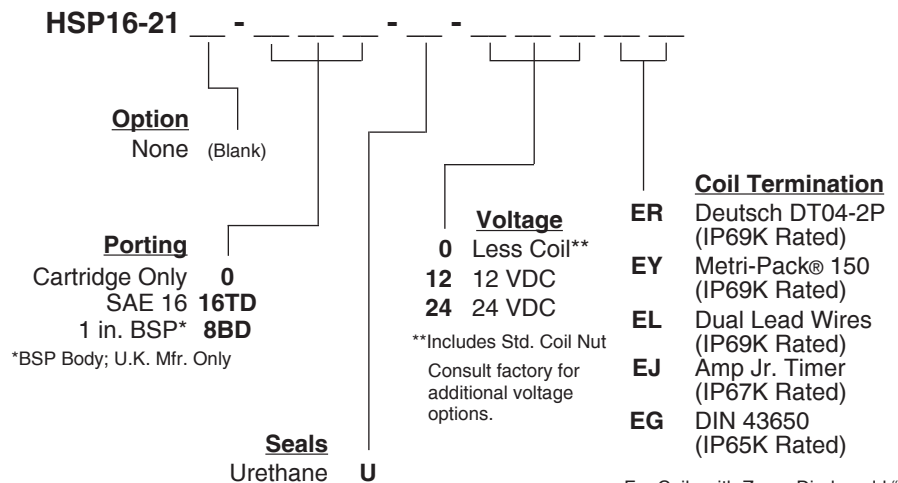
MATERIALS

Cartridge: Weight: 0.44 kg. (0.97 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Urethane seals without back-up rings standard.

Ported Body: Weight: 3.97 kg. (8.75 lbs.); HyPerformance™ Ductile iron (code 'D') 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



Urethane seals recommended for operating pressures above 241 bar (3500 psi). Consult factory for additional seal options.

For Coils with Zener Diode, add "Z" to option code. For example: "ER/Z". Not available on all models. See coil option info. on page 3.400.1