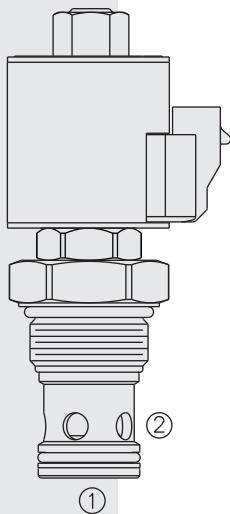


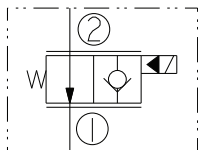
ELECTRO-PROPORTIONAL VALVES—FLOW CONTROL

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

U.S. Patent
8,253,063



ISO SYMBOL



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

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. For normal operation (de-energized) the manual override button must be fully rotated counter-clockwise.

Note: The manual override feature is intended for emergency use, not for continuous duty operation.

FEATURES

- Industry-common cavity.
- Efficient wet-armature construction.
- Continuous-duty rated coils.
- Optional waterproof E-Coils rated up to IP69K.
- Patented, high strength solenoid tubes that are 1000-hour salt-spray-rated.
- 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

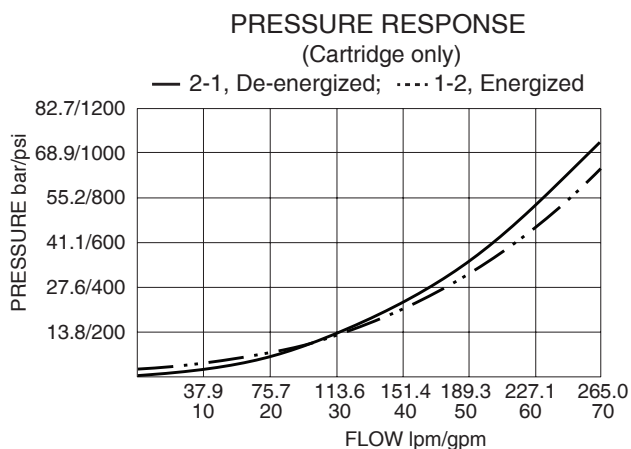
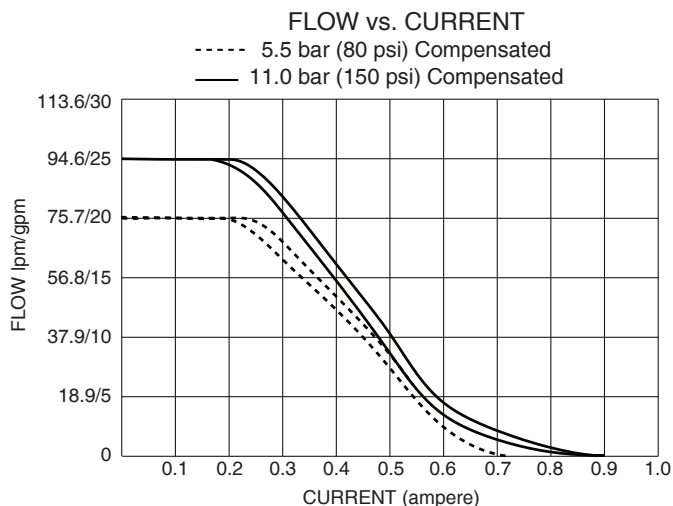
Cavity: HVC16-2; See page 9.116.1

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

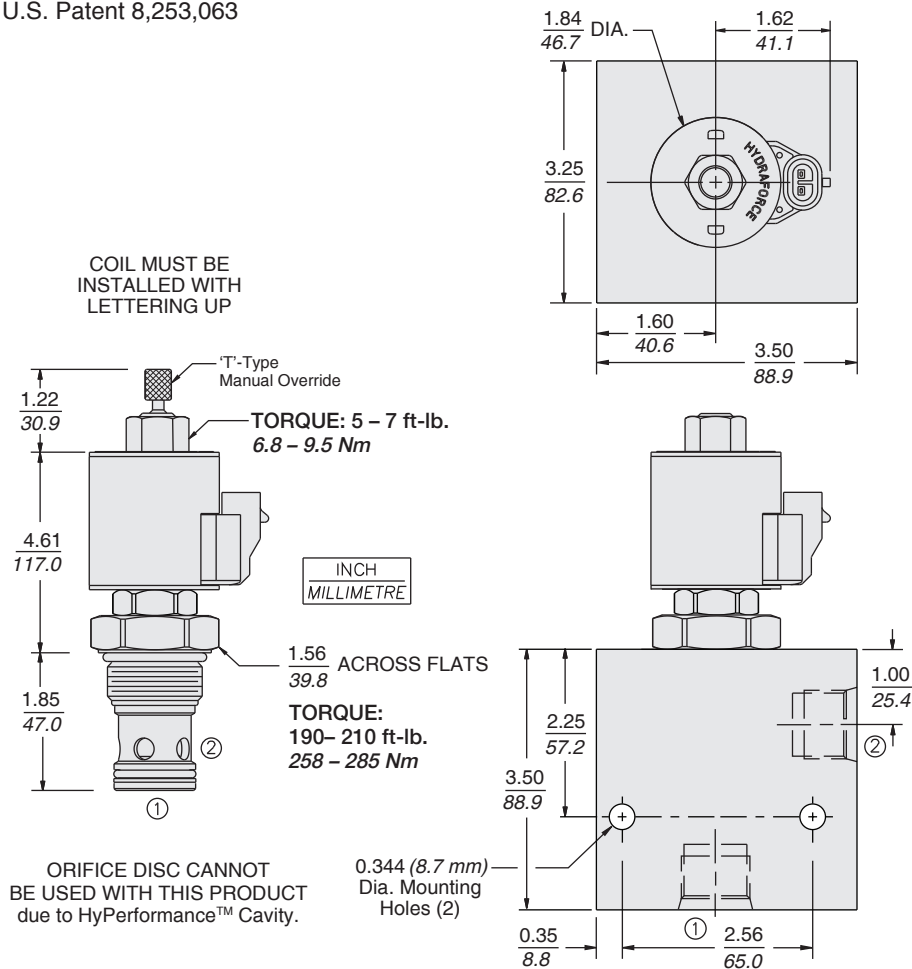
PERFORMANCE



HSP16-21

DIMENSIONS

U.S. Patent 8,253,063



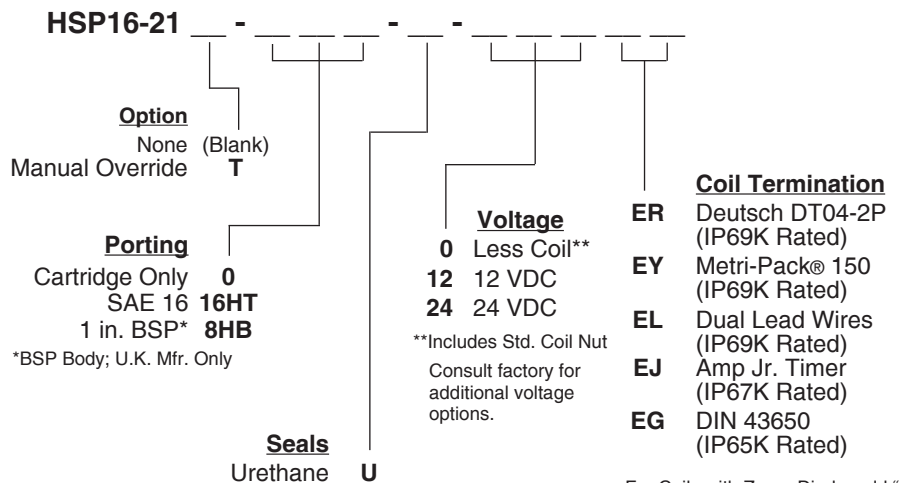
MATERIALS

Cartridge: Weight (without coil and nut) 0.44 kg. (0.97 lbs.); (with manual override) 0.45 kg. (0.99 lb.)
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



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