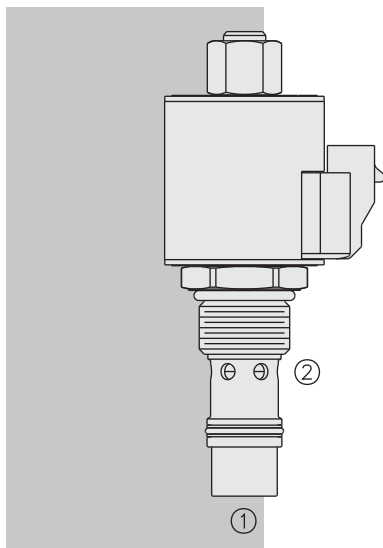


HPV12-21 HyPerformance™ Proportional Flow



DESCRIPTION

A solenoid-operated, electrically-variable, two-port, pressure-compensated, spool-type, normally open when de-energized, proportional flow control valve for high pressure applications up to 350 bar (5075 psi).

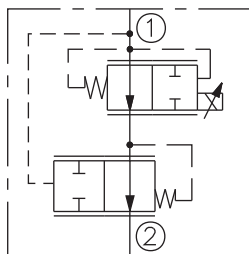
OPERATION

With inlet at port 1, the HPV12-21 regulates flow out of port 2 regardless of system working pressure. Increasing current applied to the solenoid will decrease output flow.

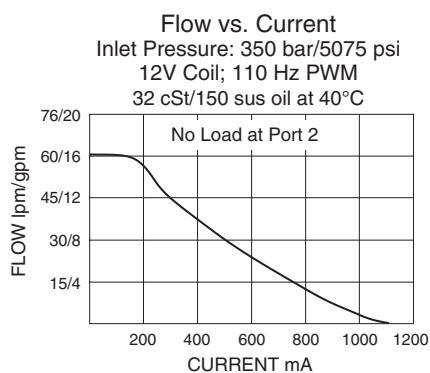
FEATURES

- Continuous-duty rated solenoid with optional coil voltages and terminations.
- Hardened spool and cage for long life.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Unitized, molded, waterproof E-Coils rated up to IP69K.
- 1000-hour salt-spray rated solenoid tubes and coils.
- 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%.

ISO SYMBOL



PERFORMANCE



Performance info. continued on next page.

RATINGS

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

Note: All HyPerformance products are tested for 900K cycles at 350 bar and 100K cycles at 420 bar.

Burst Pressure: 1241 bar (18,000 psi)

Proof Pressure: 690 bar (10,000 psi)

Regulated Flow Rate: 0 to 61 lpm (0 to 16 gpm)

Max. Internal Leakage: 0.38 lpm (0.10 gpm) at port 2 at zero current and 345 bar (5000 psi) pressure at port 1

Temperature: -54° to 107°C (-65° to 225°F) with PPDI Urethane seals

Hysteresis: ±1.9 lpm (0.50 gpm) maximum

Dither/PWM Frequency Range: 100 to 250 Hz

Electrical Parameters (with size 10 E-series coil):

Coil Voltage	Threshold Current	Max. Control Current
12 VDC	100 ± 50 mA	1100 ± 100 mA
24 VDC	50 ± 25 mA	550 ± 50 mA

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: HVC12-2 Cavity Variation "A"; See page 9.112.1

Cavity Tool: HCT12-2X-XX; See page 8.600.1

Seal Kit: HSK12-2U-O; See page 8.650.1

Coil Nut: Part No. 7004420

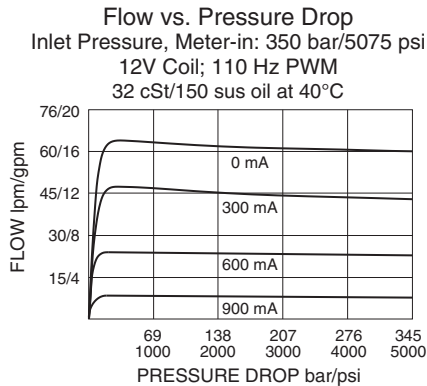
Recommended Electronic Controllers:

See page 2.001.1 or our Electronics catalog.

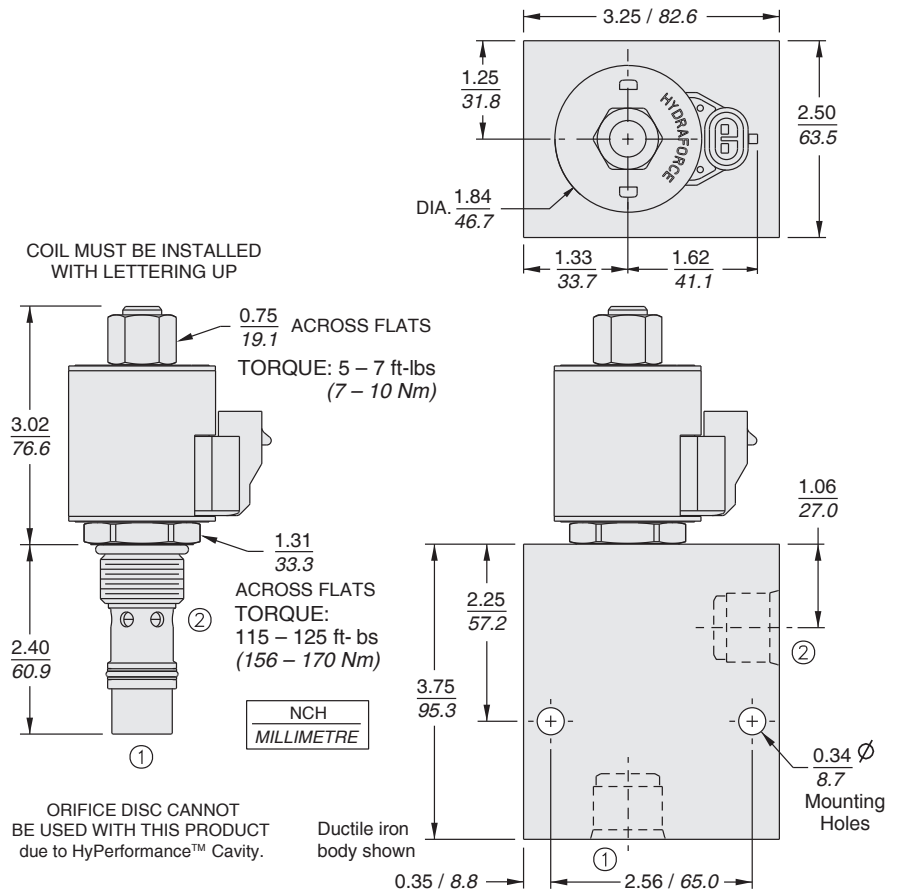
Control Valve, Normally Open

HPV12-21

PERFORMANCE (continued)



DIMENSIONS



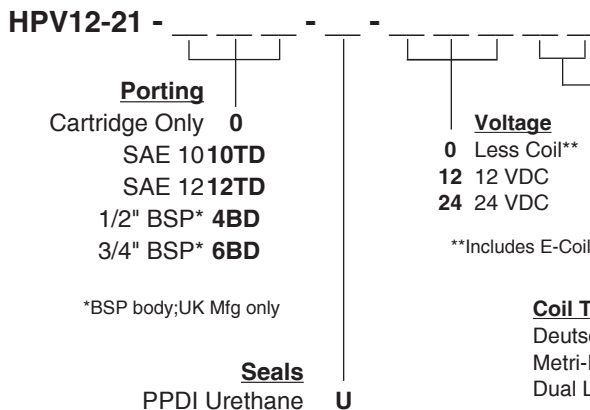
MATERIALS

Cartridge: Weight: 0.29 kg. (0.64 lbs.)
 Steel with hardened work surfaces.
 Zinc-plated exposed surfaces.
 PPDl Urethane seals without back-up rings standard.

Ported Body: Weight: 2.74 kg. (6.05 lbs.); HyPerformance™ Ductile iron (code 'D') standard. Rated to 345 bar (5000 psi). See page 8.012.1.

E-Coil: Weight: 0.41 kg. (0.9 lbs.); Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors. See page 3.400.1.

TO ORDER



Note: PPDl Urethane seals recommended for pressures above 241 bar (3500 psi).

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

Note: Consult factory for additional seal options.