**HSV12-23 HyPerformance™ Poppet, 2-Way,**

**DESCRIPTION**
A solenoid-operated, 2-way, piloted, normally open, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding valve in high-pressure applications requiring low internal leakage.

**OPERATION**
When de-energized, the HSV12-23 allows flow bi-directionally. When energized, the valve’s poppet closes on its seat, blocking flow from ports 2 to 1. In this mode, the cartridge will allow flow from ports 1-2 after overcoming the actuator and spring forces. (See performance graph.)

**Operation of Manual Override Option:** The manual override feature is intended for emergency use, not continuous duty operation. To shift the valve manually, push and hold down the manual override button or knob.

**FEATURES**
- Bi-directional operation.
- Continuous-duty rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual override option.
- Waterproof E-Coils rated up to IP69K.
- Corrosion-resistant plating.
- Unitized, molded coil design.
- Cost effective cavity.
- 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)

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

**Proof Pressure:** 690 bar (10,000 psi)

**Burst Pressure:** 1380 bar (20,000 psi)

**Flow Rating:** 114 lpm (30 gpm)

**Internal Leakage:** 7 drops/minute with 350 bar (5075 psi) at port 2.

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

**Coil Duty Rating:** Continuous from 85% to 115% of nominal voltage

**Initial Coil Current Draw at 20°C:** E-Coil: 1.7 amps at 12 Vdc; 0.85 amps at 24 Vdc

**Minimum Pull-in Voltage:** 85% of nominal at 350 bar (5075 psi)

**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; See page 9.112.1

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

**Seal Kit:** SK12-2U-0; See page 8.650.1

**Coil Nut:** Part No: 4553800
**Cartridge** Weight: (without coil and nut) 0.29 kg (0.63 lb) Steel with hardened work surfaces. Urethane seals without back-up rings standard.

**Standard Ported Body**: Weight: 2.62 kg (1.18 lb) H-series ductile iron. Rated to 350 bar (5075 psi). See page 8.012.1

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

**Materials**

| Cartridge torque shown for ductile iron manifold. Torque 60-65 ft-lb (81-88 Nm) in aluminum. Aluminum housing is rated to 207 bar (3000 psi). |

** TO ORDER **

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<tr>
<th>HSV12-23</th>
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<tbody>
<tr>
<td>Option</td>
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<td>Manual Override</td>
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For Manual Override options see page 1.001.1

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<tr>
<td></td>
<td>Less Coil**</td>
<td>12 Vdc</td>
<td>24 Vdc</td>
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** Includes E-Coil Nut. **

** Coils Termination **

- Deutsch DT04-2P
- Metri-Pak 150
- Dual Lead Wires
- Amp Jr. Timer
- DIN 43650

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

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<th>Porting</th>
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**Seals**

- Urethane

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