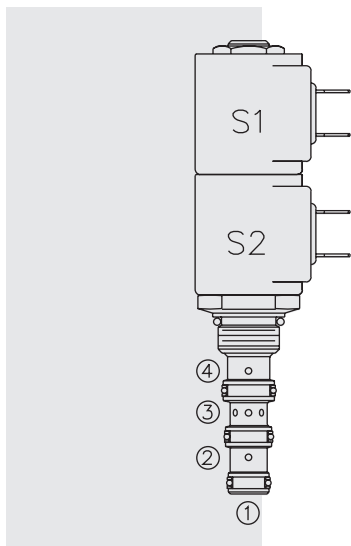
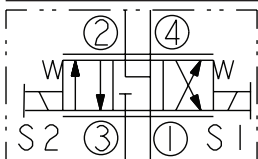
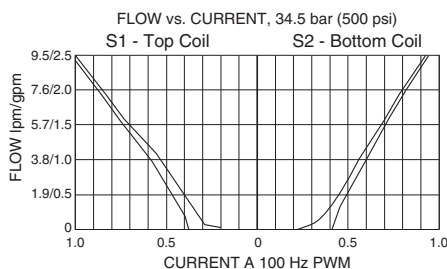
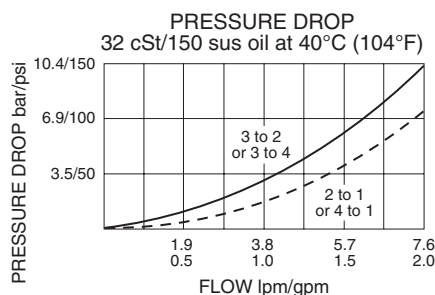


SP08-47DL Spool, 4-Way, 3-Position, "Motor Spool"**ISO SYMBOL****PERFORMANCE** (Cartridge Only)**DESCRIPTION**

A proportional solenoid-operated, direct-acting, four-way, three-position, spool-type, motor spool, screw-in hydraulic directional control cartridge valve with lower maximum flow rate of 7.6 lpm (2 gpm).

OPERATION

When de-energized, the **SP08-47DL** blocks flow to 3 while allowing flow from 2 to 1, and from 4 to 1. When coil S1 is energized flow is allowed from 3 to 4 and from 2 to 1. When coil S2 is energized flow is allowed from 3 to 2 and from 4 to 1.

Initial meter-in flow begins at a nominal 0.4 amp on a 12 VDC system. Full flow of 2 gpm occurs at 1.0 to 1.1 amp on a 12 VDC system. Each coil has its own metering characteristics, which are quite similar (see performance chart).

While port 1 may be fully pressurized, it is not intended for use as the valve's inlet.

In circuits where work port flows are unequal due to cylinder ratios, the higher return flow should be directed to port 2.

FEATURES

- Continuous-duty rated solenoids.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Hardened precision spool and cage for long life.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Designed for good linearity and hysteresis.
- Optional manual override.
- Industry-common cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow Rating: 7.6 lpm (2 gpm) max. (see performance chart); Flow rate is based on 50% duty cycle and coil temperature of 20°C (140°F). Consult factory if higher duty cycle and coil temperatures are anticipated.

Internal Leakage: 164 ml/minute (10 cu. in./minute) port 3 to 2 or 3 to 4, each port, in neutral, at 207 bar (3000 psi) inlet pressure

Hysteresis: 100 Hz

Operating Temperature: -40 to 100°C (-40 to 212°F) with Buna N seals; -26 to 204°C (-15 to 400°F) with fluorocarbon seals; -54 to 107°C (-65 to 215°F) with polyurethane seals

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 Recommendation: When possible, the valve should be mounted below the reservoir oil level. This will maintain oil in the armature preventing trapped air instability. If this is not feasible, mount the valve horizontally for best results. See page 9.020.1

Cavity: VC08-4; See page 9.108.1; **Cavity Tool:** CT08-4XX; See page 8.600.1

Seal Kit: SK08-4X-MMM; See page 8.650.1

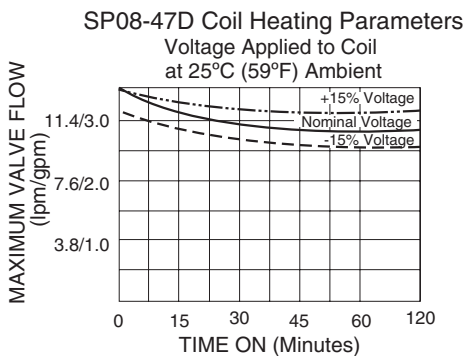
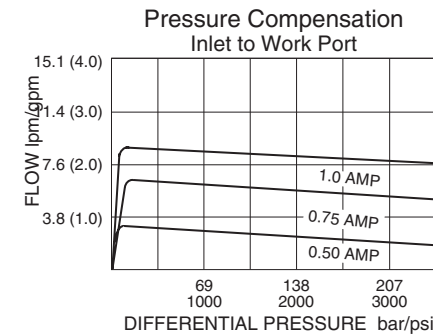
Coil Nut: Part No. 7004400; **Manual Override Coil Nut:** Part No. 4528180;

Coil Spacer: Std D-Coil Spacer Part No. 7012940; E-Coil Spacer Part No. 4534720; If cartridge is ordered "Less Coil," D-Coil spacer will be provided unless an E is specified in the Coil Termination To Order section.

Low Flow Version

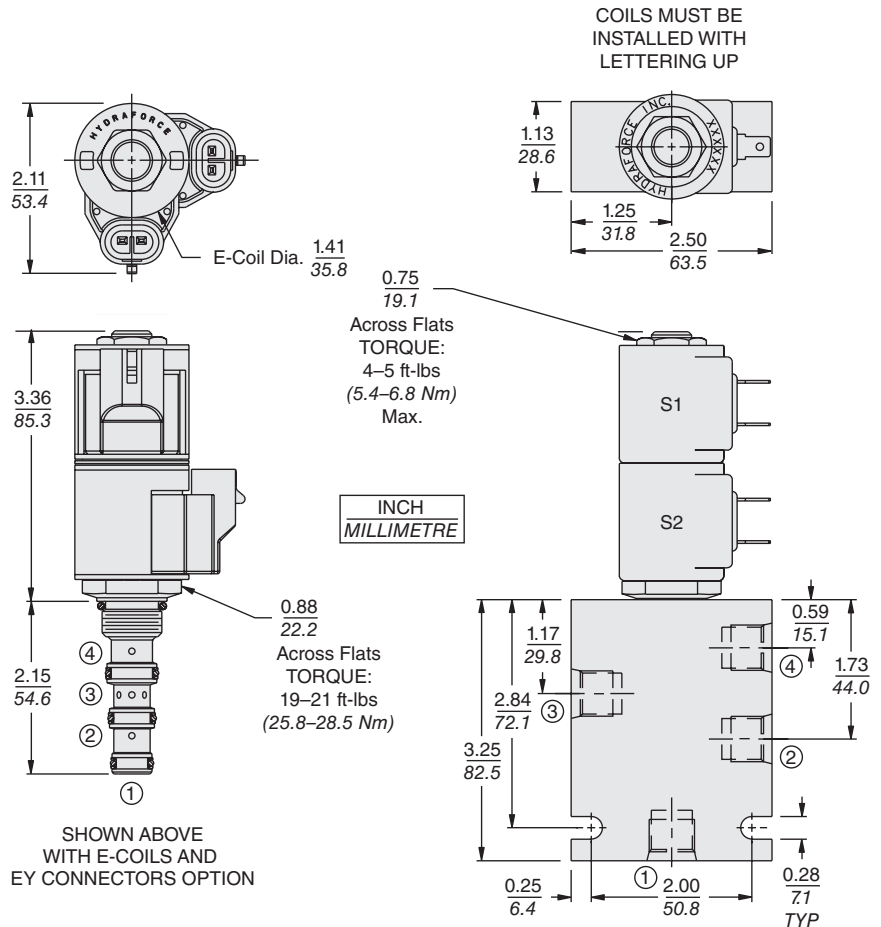
SP08-47DL

PERFORMANCE (cont'd.)



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

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.14 kg. (0.31 lbs.) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and back-ups std.

Standard Ported Body: Weight: 0.18 kg. (0.40 lbs.) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.008.1.

Standard Coil: 2 Required. Weight each: 0.11 kg. (0.25 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnet wire. See page 3.200.1.

E-Coil: 2 Required. Weight each: 0.14 kg. (0.3 lbs.); Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors. See page 3.400.1

TO ORDER

SP08-47DL - - - - -				
Option		Voltage		
None (Blank)		Std. D-Coil		
Manual Override M		00 Less Coil**		
Manual Override B		12 12 VDC		
For Manual Override options see page 1.001.1		24 24 VDC		
		**Includes D-Coil Nut and Spacer.		
Porting		E-Coil		
Cartridge Only 0		12 12 VDC		
SAE 6 6T		24 24 VDC		
1/4 in. BSP* 2B		Seals		
3/8 in. BSP* 3B		N Buna N (Std.)		
*BSP Body; U.K. Mfr. Only		V Fluorocarbon		
		P Polyurethane		
		Coil Termination		
		Less Coil w/Spacer		
		Deutsch DT04-2P		
		Metri-Pack® 150		
		Dual Lead Wires		
		Amp Jr. Timer		
		DIN 43650		
		Dual Spades		
		E-Coil		
		E		
		ER (IP69K)		
		EY (IP69K)		
		EL (IP69K)		
		EJ (IP67)		
		EG (IP65)		
		D-Coil		
		—		
		DR (IP65)		
		DY (IP65)		
		DL (IP65)		
		—		
		DG (IP65)		
		DS (IP65)		

For Coils with Zener Diode, add "Z" to option code. For example: "ER/Z". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1