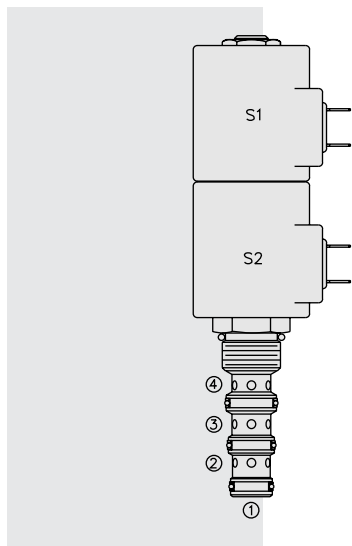


## SV10-47B Spool, 4-Way, 3-Position, Open Center



### DESCRIPTION

A solenoid-operated, 4-way, 3-position, direct-acting, spool-type, open center, screw-in hydraulic cartridge valve.

### OPERATION

When de-energized, **SV10-47B** cylinder ports are open and common to ③ and ①.

When coil #1 is energized, flow is allowed from ③ to ④, and from ② to ①.

When coil #2 is energized, flow is allowed from ③ to ②, and from ④ to ①.

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

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

**Operation of Manual Override Option:** To override, push the knurled button to activate the coil #2 (S2) function, or pull the knob to activate the coil #1 (S1) function.

### FEATURES

- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Efficient wet-armature construction.
- All ports may be fully pressurized.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Industry common cavity.

### RATINGS

**Operating Pressure:** 240 bar (3500 psi)

**Proof Pressure:** 390 bar (5700 psi)

**Flow:** 22.7 lpm (6 gpm) max.

**Internal Leakage:** 328 cc/minute (20 cu. in./minute) max. at 207 bar (3000 psi)

**Temperature:** -40 to 120°C with standard Buna seals

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

**Response Time:** First indication of change of state with 100% voltage supplied at 80% of nominal flow rating: Energized: 30 msec.; De-energized: 10 msec.

**Initial Coil Current Draw at 20°C:** Standard Coil: 1.67 amps at 12 VDC; 0.18 amps at 115 VAC (full wave rectified).

E-Coil: 1.7 amps at 12 VDC; 0.85 amps at 24 VDC

**Minimum Pull-in Voltage:** 85% of nominal at 207 bar (3000 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:** VC10-4; See page 9.110.1

**Cavity Tool:** CT10-4XX; See page 8.600.1

**Seal Kit:** SK10-4X-MMM; See page 8.650.1

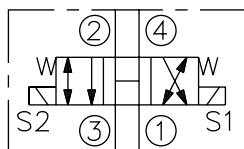
**Coil Nut:** Part No. 7004400; **Manual Override Coil Nut:** Part No. 4528180

**Coil Spacer:** Part No. 4539700

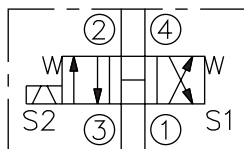
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut & spacer info.

### SYMBOLS

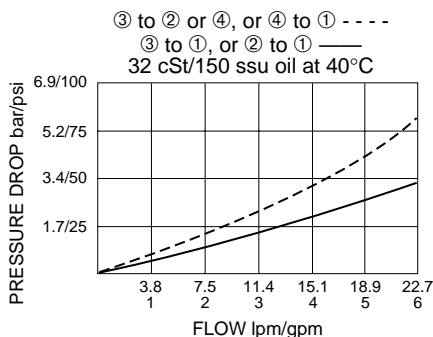
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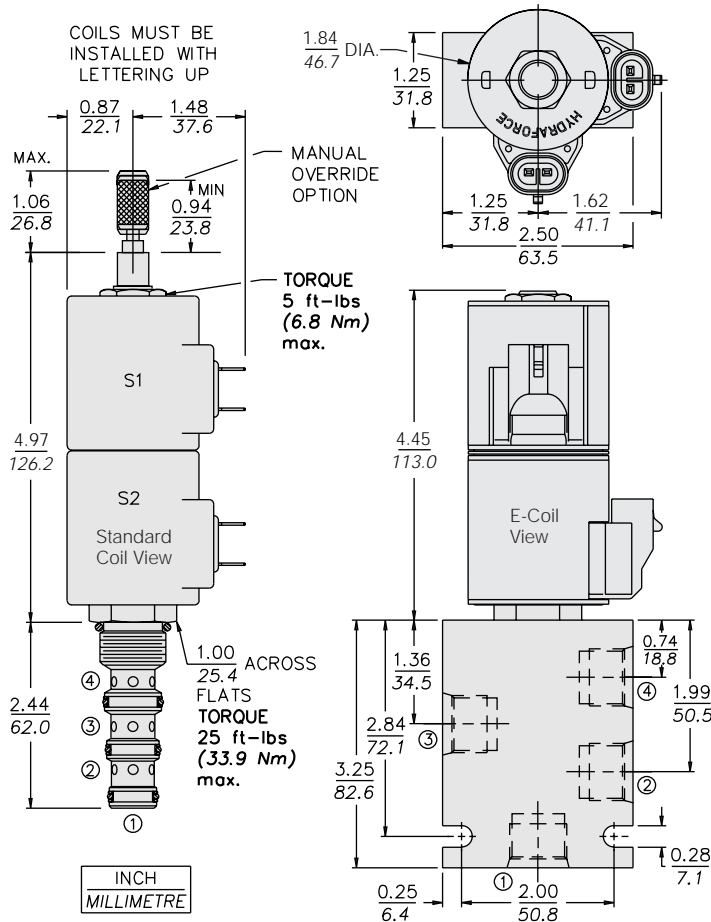
#### ISO:



### PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.30 kg. (0.65 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

**Standard Ported Body:** Weight: 0.36 kg. (0.80 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ. See page 8.010.1.

**Standard Coil:** Weight each: 0.27 kg. (0.60 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnetwire. See page 3.200.1

**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 for all E-Coil retrofit applications.**

**TO ORDER**

**SV10-47B**

<b>Option</b>	<b>Voltage</b>	<b>Termination (VDC)</b>
None (Blank)	<b>Std. Coil</b>	<b>Std. Coil</b>
Manual Override <b>M</b>	<b>0</b> Less Coil**	<b>DS</b> Dual Spades
Manual Override <b>T</b>	<b>10</b> 10 VDC <sup>†</sup>	<b>DG</b> DIN 43650
For Manual Override options see page 1.001.1	<b>12</b> 12 VDC	<b>DL</b> Leadwires (2)
	<b>24</b> 24 VDC	<b>DL/W</b> Leads w/Weatherpak® Connectors
	<b>36</b> 36 VDC	<b>DR</b> Deutsch DT04-2P
	<b>48</b> 48 VDC	
<b>Porting</b>	<b>24</b> 24 VAC	<b>Termination (VAC)</b>
Cartridge Only <b>0</b>	<b>115</b> 115 VAC	<b>Std. Coil</b>
SAE 6 <b>6T</b>	<b>230</b> 230 VAC	<b>AG</b> DIN 43650
SAE 8 <b>8T</b>	**Includes Std. Coil Nut	<b>AP</b> 1/2 in. Conduit
1/4 in. BSP* <b>2B</b>	<sup>†</sup> DS, DW or DL terminations only.	<b>Termination (VDC)</b>
3/8 in. BSP* <b>3B</b>		<b>E-Coil</b>
*BSP Body; U.K. Mfr. Only	<b>E-Coil</b>	<b>ER</b> Deutsch DT04-2P (IP69K Rated)
	<b>10</b> 10 VDC	<b>EY</b> Metri-Pack® 150 (IP69K Rated)
<b>Seals</b>	<b>12</b> 12 VDC	
Buna N (Std.) <b>N</b>	<b>20</b> 20 VDC	
Fluorocarbon <b>V</b>	<b>24</b> 24 VDC	

Coils with internal diode are available. Consult factory.