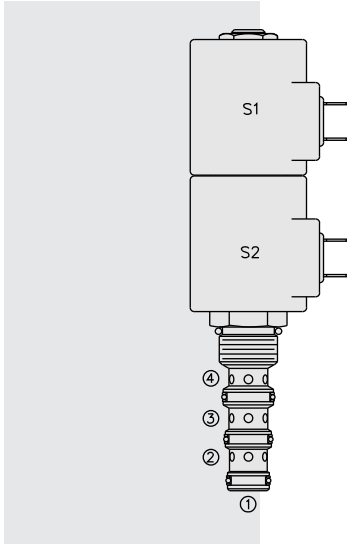


SV10-47B Spool, 4-Way, 3-Position, Open Center



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

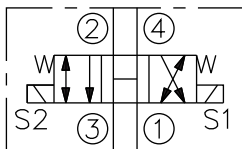
Seal Kit: SK10-4X-MMM; See page 8.650.1

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

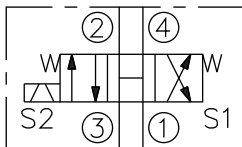
Coil Spacer: E-Coil Spacer Part No. 4539700; Std. D-Coil Spacer Part No. 7000280; If cartridge is ordered "Less Coil," D-Coil spacer will be provided.

SYMBOLS

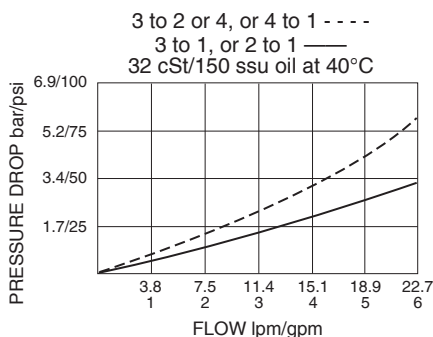
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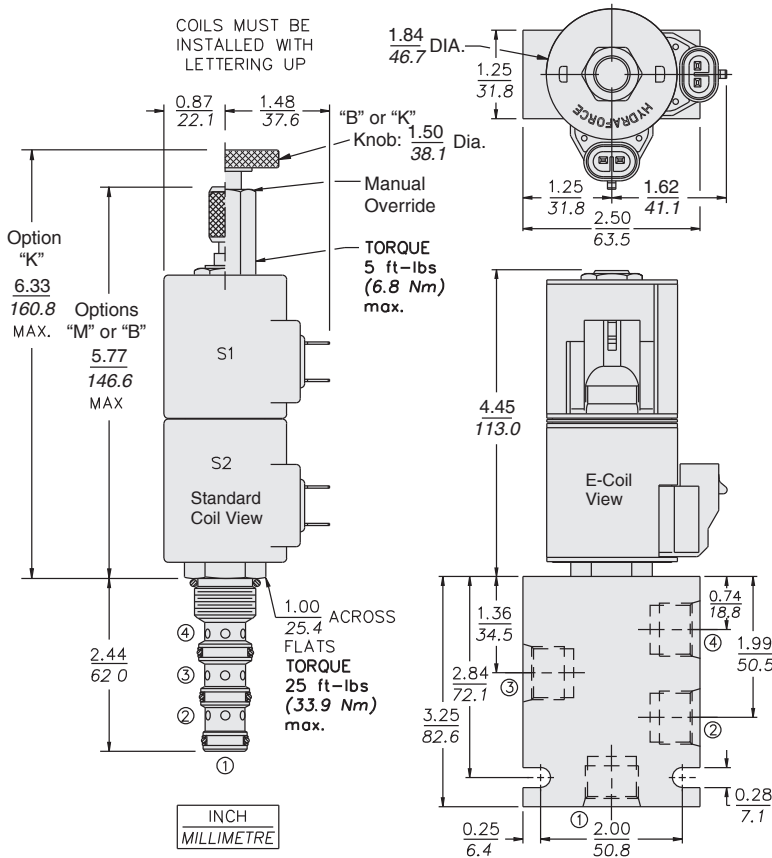


PERFORMANCE (Cartridge Only)



SV10-47B

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

TO ORDER

SV10-47B

Option	None (Blank)	Voltage	Std. D-Coil
Manual Override	M	0	Less Coil**
Manual Override	B	10	10 VDC†
Manual Override	K	12	12 VDC
For Manual Override options see page 1.001.1		20	20 VDC
Porting		24	24 VDC
Cartridge Only	0	36	36 VDC
SAE 6	6T	48	48 VDC
SAE 8	8T	24	24 VAC
1/4 in. BSP*	2B	115	115 VAC
3/8 in. BSP*	3B	230	230 VAC
*BSP Body; U.K. Mfr. Only		**Includes D-Coil Nut and Spacer.	
Seals		† DS, DW or DL terminations only.	
Buna N (Std.)	N	E-Coils: 10, 12, 20, 24 VDC only.	
Fluorocarbon	V		

Coil Termination	E-Coil	D-Coil
Deutsch DT04-2P	ER (IP69K)	DR (IP65)
Metri-Pack® 150	EY (IP69K)	DY (IP65)
Dual Lead Wires	EL (IP69K)	DL (IP65)
Amp Jr. Timer	EJ (IP67)	—
DIN 43650	EG (IP65)	DG (IP65)
Dual Spades	—	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