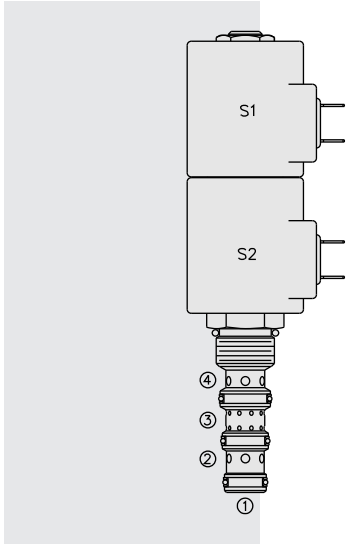


SV10-47A Spool, 4-Way, 3-Position, Tandem Center



DESCRIPTION

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

OPERATION

When de-energized, the **SV10-47A** blocks cylinder ports, while allowing flow from 3 to 1. When coil #1 is energized, flow is allowed from 3 to 2, and from 4 to 1. When coil #2 is energized, flow is allowed from 3 to 4, and from 2 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.

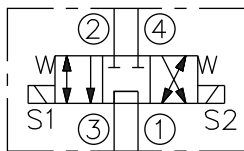
Operator of Manual Override Option: To override, push the knurled button to activate the coil #2 (S2) function, or pull the knob to activate the coil #1 (S1) function.

FEATURES

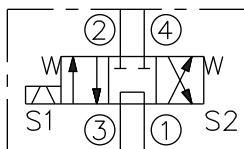
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- All ports may be fully pressurized.
- Cartridges are voltage interchangeable.
- Hardened precision spool and cage for long life.
- Continuous-duty rated solenoid.
- Manual override option.
- Optional waterproof E-Coils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

SYMBOLS

USASI:



ISO:



RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 390 bar (5700 psi)

Flow: 19 lpm (5 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 85% voltage supplied at 100% of nominal flow rating: Energized: 100 msec.; De-energized: 50 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

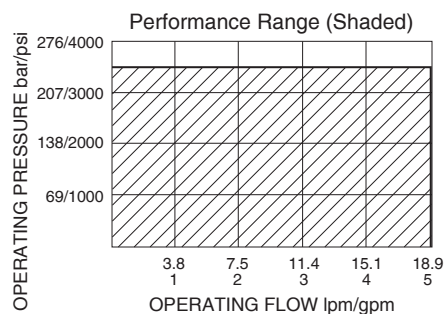
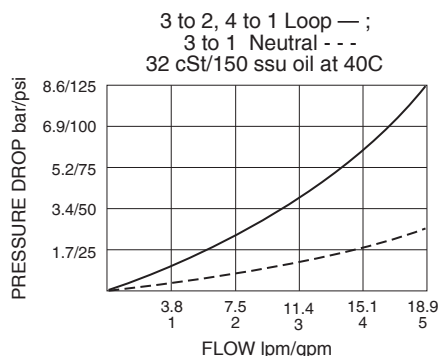
Cavity: VC10-4; See page 9.110.1; **Cavity Tool:** CT10-4XX; See page 8.600.1

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

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

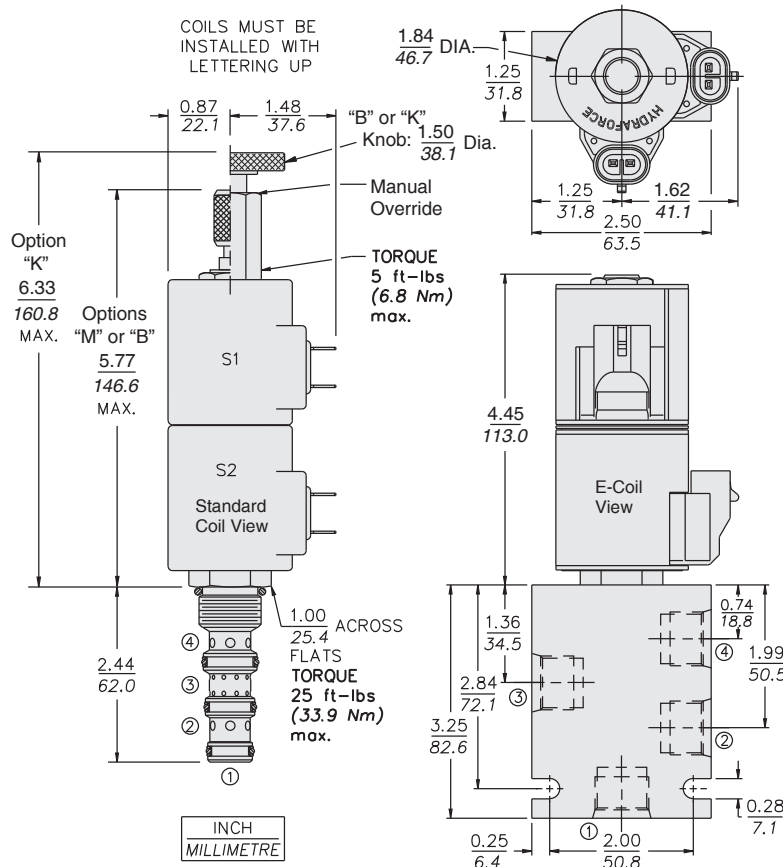
Coil Spacer: E-Coil Spacer Part No. 4539700; Std. D-Coil Spacer Part No. 7000280; If cartridge is ordered "Less Coil," D-Coil spacer will be provided.

PERFORMANCE (Cartridge Only)



SV10-47A

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

SV10-47A

Option
None (Blank)
Manual Override **M**
Manual Override **B**
Manual Override **K**
For Manual Override options see page 1.001.1

Porting
Cartridge Only **0**
SAE 6 **6T**
SAE 8 **8T**
1/4 in. BSP* **2B**
3/8 in. BSP* **3B**
*BSP Body; U.K. Mfr. Only

Seals
Buna N (Std.) **N**
Fluorocarbon **V**

Voltage Std. D-Coil

0 Less Coil**
10 10 VDC†
12 12 VDC
20 20 VDC
24 24 VDC
36 36 VDC
48 48 VDC
24 24 VAC
115 115 VAC
230 230 VAC

**Includes D-Coil Nut and Spacer.

† DS, DW or DL terminations only.

E-Coils: 10, 12, 20, 24 VDC only.

Coil Termination
Deutsch DT04-2P
Metri-Pack® 150
Dual Lead Wires
Amp Jr. Timer
DIN 43650
Dual Spades

E-Coil
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