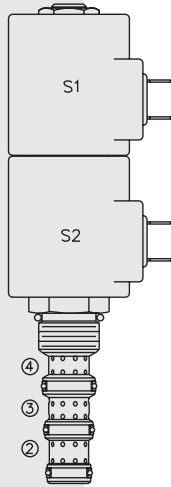


SV10-47A Spool, 4-Way, 3-Position, Tandem Center



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.

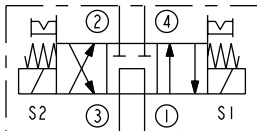
In circuits where work port flows are unequal due to cylinder ratios, the higher return flow should be directed to port 2. **NOTE: While 1 may be fully pressurized, it is not intended for use as the valve's inlet.**

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

- 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.

ISO SYMBOL



RATINGS

Operating Pressure: 250 bar (3625 psi); **Proof Pressure:** 344 bar (5000 psi)

Burst Pressure: 779 bar (11,300 psi)

Flow: 19 lpm (5 gpm) max.

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

Temperature: -40 to 100 °C (-40 to 212 °F) with standard Buna seals; -26 to 204 °C (-15 to 400 °F) with fluorocarbon seals; -54 to 107 °C (-65 to 225 °F) with polyurethane 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 ms; De-energized: 50 ms

Initial Coil Current Draw at 20 °C: Standard Coil: 1.67 A at 12 Vdc;

0.18 A at 115 Vac (full wave rectified).

E-Coil: 1.7 A at 12 Vdc; 0.85 A 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

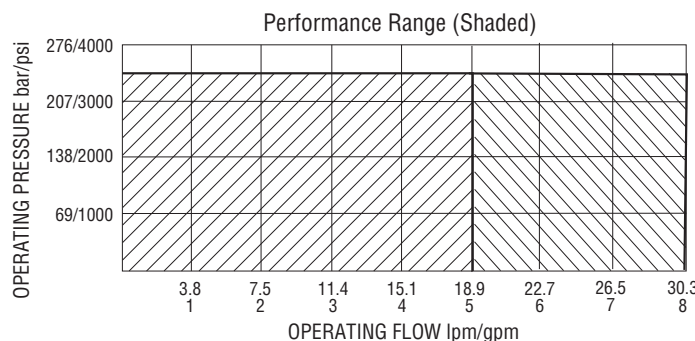
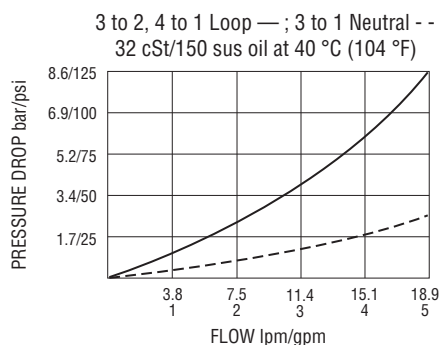
Seal Kit: SK10-4X-MMM; See page 8.650.1

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

Coil Spacer: Std. D-Coil Spacer Part No. 7009286; E-Coil Spacer Part No. 4539700;

If cartridge is ordered "Less Coil," D-Coil spacer will be provided unless an E is specified in the Coil Termination To Order section.

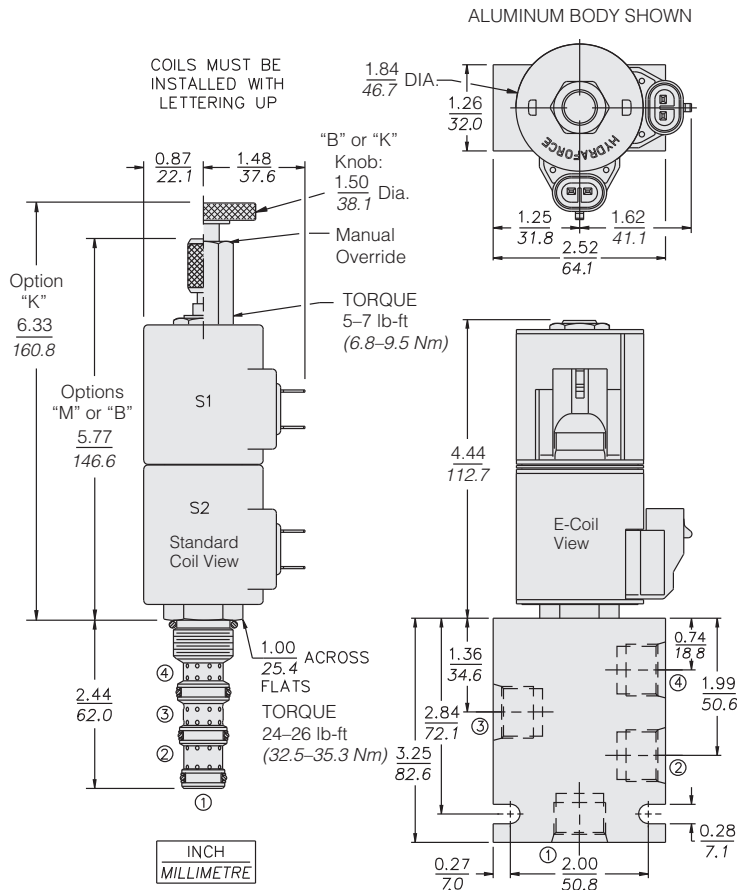
PERFORMANCE (Cartridge Only)



NOTE:

Consult factory if operating flow above 18.9 lpm (5 gpm) is with oil viscosity over 420 cSt and/or valve is operated continuously (100% duty cycle)

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.27 kg (0.60 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and backups standard.

Standard Ported Body: Weight: 0.36 kg (0.80 lb); Anodized high-strength 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 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire. See page 3.200.1

E-Coil: Weight: 0.41 kg (0.9 lb); 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 - - -

- 1,000 Hour Salt Spray Coating **G**
- 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 8 **8T**
- Seals**
 - Buna N (Std.) **N**
 - Fluorocarbon **V**
 - Polyurethane **P**
- Voltage Std. D-Coil**
 - 00** 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.
- ††AC Volt Only
- E-Coils:** 10, 12, 20, 24 Vdc only.
- Coil Termination**
 - Less Coil w/Spacer **E**
 - Deutsch DT04-2P **ER** (IP69K)
 - Metri-Pack® 150 **EY** (IP69K)
 - Dual Lead Wires **EL** (IP69K)
 - Amp Jr. Timer **EJ** (IP67)
 - DIN 43650 **EG** (IP65)
 - Dual Spades **—**
 - DIN 43650 **—**
 - 1/2" Conduit **—**
- E-Coil**
 - DR** (IP65)
 - DY** (IP65)
 - DL** (IP65)
 -
 - DG** (IP65)
 - DS** (IP65)
 - AG** (IP65)†
 - AP** (IP65)†
- D-Coil**

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