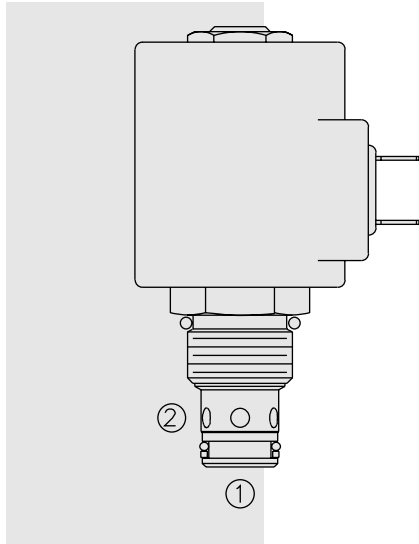


# SOLENOID VALVES

## SV10-28 Poppet, 2-Way, N.C., Bi-Directional Blocking



### DESCRIPTION

A solenoid-operated, 2-way, normally closed, internally piloted, poppet-type, bi-directional blocking, screw-in hydraulic cartridge valve, designed for low leakage in load-holding applications.

### OPERATION

When de-energized, the **SV10-28** blocks flow in both directions. When energized, the valve's poppet opens on its seat, allowing flow from ② to ① or ① to ②.

### FEATURES

- Continuous-duty rated coil.
- Optional coil voltages and terminations.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Hardened seat for long life and low leakage.
- Industry common cavity.

### RATINGS

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

**Flow:** 75.7 lpm (20 gpm)

**Internal Leakage:** 0.25 cc/minute (5 drops/minute) max. at 240 bar (3500 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: 40 msec.; De-energized: 32 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: 2.0 amps at 12 VDC; 1.0 amps at 24 VDC

**Minimum Pull-in Voltage:** 85% of nominal at 240 bar (3500 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 ssu)

**Installation:** No restrictions; See page 9.020.1

**Cavity:** VC10-2; See page 9.110.1

**Cavity Tool:** CT10-2XX; See page 8.600.1

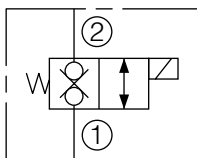
**Seal Kit:** SK10-2X-M; See page 8.650.1

**Coil Nut:** Part No. 7004400;

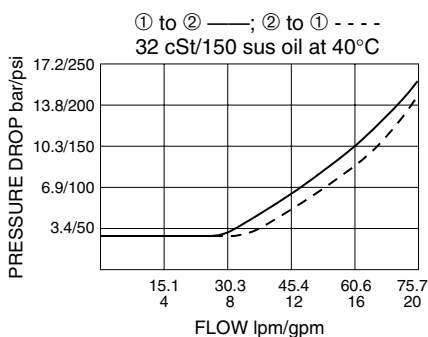
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

### SYMBOLS

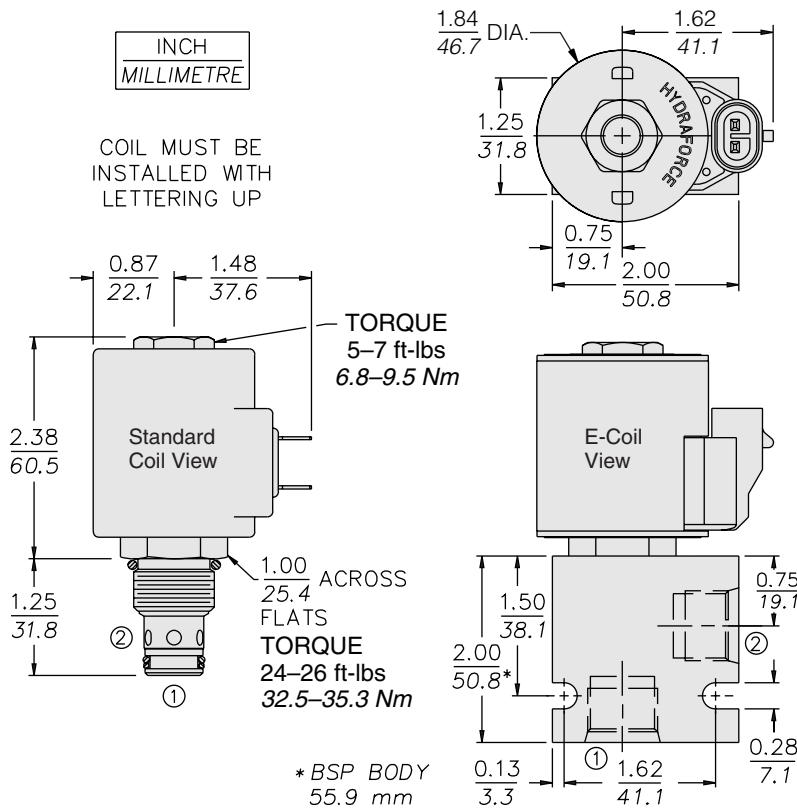
#### USAS/ISO:



### PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.16 kg. (0.35 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); See page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

**Standard Coil:** Weight: 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. (0.90 oz.); Fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors;  
**Note: See page 3.400.1 for all E-Coil retrofit applications.**

**TO ORDER**

<b>SV10-28 -</b>		<b>Termination (VDC) Std. Coil</b>	
<b>Porting</b>	<b>0</b>	<b>0</b> Less Coil**	<b>DS</b> Dual Spades
Cartridge Only	<b>6T</b>	<b>10</b> 10 VDC <sup>†</sup>	<b>DG</b> DIN 43650
SAE 6	<b>8T</b>	<b>12</b> 12 VDC	<b>DL</b> Leadwires (2)
SAE 8	<b>2B</b>	<b>24</b> 24 VDC	<b>DL/W</b> Leads w/Weatherpak® Connectors
1/4 in. BSP*	<b>3B</b>	<b>36</b> 36 VDC	<b>DR</b> Deutsch DT04-2P
3/8 in. BSP*	<b>4B</b>	<b>48</b> 48 VDC	
1/2 in. BSP*		<b>24</b> 24 VAC	
*BSP Body; U.K. Mfr. Only		<b>115</b> 115 VAC	<b>Termination (VAC) Std. Coil</b>
		<b>230</b> 230 VAC	<b>AG</b> DIN 43650
		**Includes Std. Coil Nut	<b>AP</b> 1/2 in. Conduit
		<sup>†</sup> DS, DW or DL terminations only	<b>Termination (VDC) E-Coil</b>
<b>Seals</b>	<b>N</b>	<b>E-Coil</b>	<b>ER</b> Deutsch DT04-2P (IP69K Rated)
Buna N (Std.)	<b>V</b>	<b>10</b> 10 VDC	<b>EY</b> Metri-Pack® 150 (IP69K Rated)
Fluorocarbon		<b>12</b> 12 VDC	
		<b>20</b> 20 VDC	
		<b>24</b> 24 VDC	

Coils with internal diode are available. Consult factory.