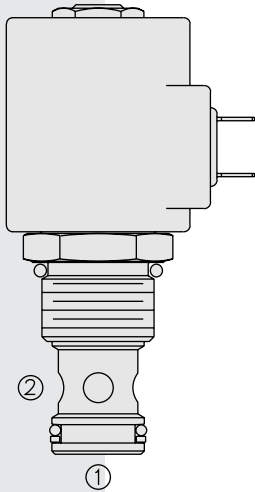


SOLENOID VALVES

SV12-28 Poppet, 2-Way, N.C., Bi-Directional Blocking



DESCRIPTION

A solenoid-operated, two-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 **SV12-28** 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.
- Efficient wet-armature construction.
- Manual Override option.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Hardened seat for long life and low leakage.
- Unitized, molded coil design.
- Cost-effective cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow: 113.6 lpm (30 gpm)

Internal Leakage: 7 drops per minute maximum 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: 1.7 amps at 12 VDC; 0.85 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 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

Cavity: VC12-2; See page 9.112.1

Cavity Tool: CT12-2XX; See page 8.600.1

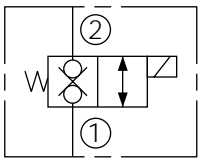
Seal Kit: SK12-2X-M; See page 8.650.1

Coil Nut: Part No. 7004400

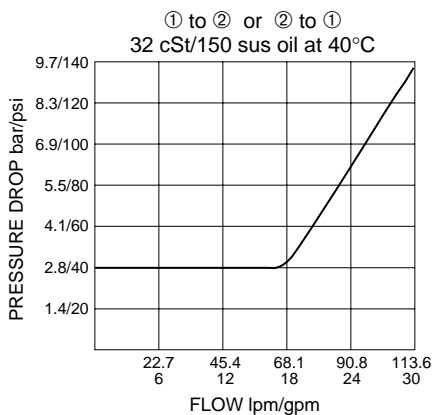
For E-Coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

SYMBOLS

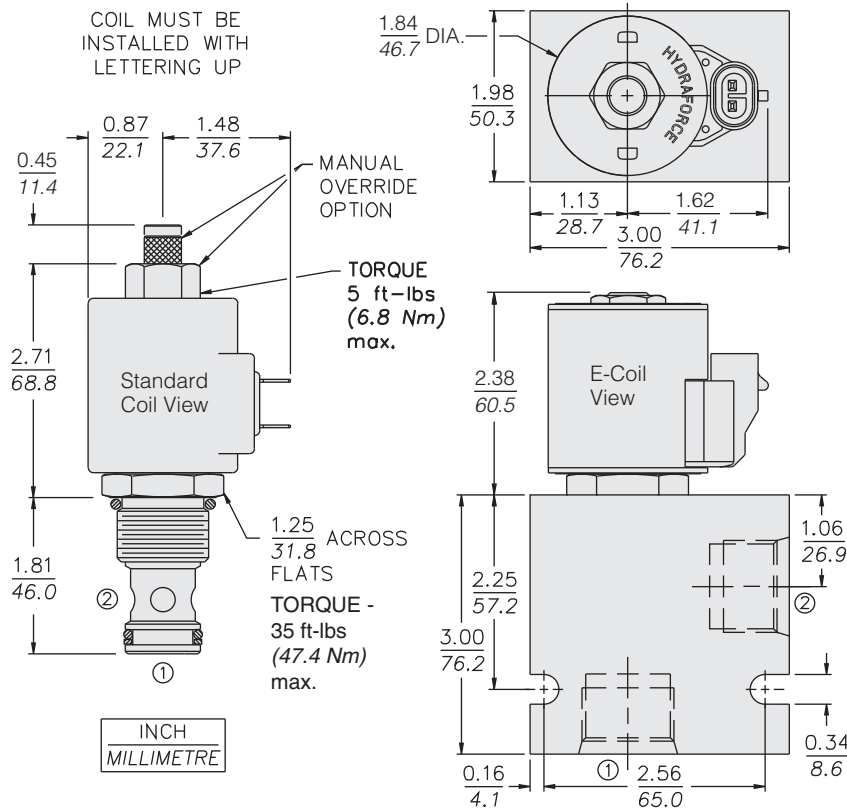
USASI/ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.25 kg. (0.55 lbs.) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.57 kg. (1.25 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1.

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. (0.9 lbs.); 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

SV12-28

Option		Voltage	Termination (VDC)
None (Blank)		Std. Coil	Std. Coil
Manual Override M		0 Less Coil**	DS Dual Spades
Manual Override Y		10 10 VDC [†]	DG DIN 43650
Manual Override J		12 12 VDC	DL Leadwires (2)
For Manual Override options see page 1.001.1		24 24 VDC	DL/W Leads w/Weatherpak® Connectors
		36 36 VDC	DR Deutsch DT04-2P
		48 48 VDC	
Porting		24 24 VAC	Termination (VAC)
Cartridge Only 0		115 115 VAC	Std. Coil
SAE 10 10T		230 230 VAC	AG DIN 43650
SAE 12 12T		**Includes Std. Coil Nut	AP 1/2 in. Conduit
SAE 16 16T		[†] DS, DW or DL terminations only.	Termination (VDC)
3/4 in. BSP* 6B		E-Coil	E-Coil
1 in. BSP* 8B		10 10 VDC	ER Deutsch DT04-2P (IP69K Rated)
*BSP Body; U.K. Mfr. Only		12 12 VDC	EY Metri-Pack® 150 (IP69K Rated)
Seals		20 20 VDC	
Buna N (Std.) N		24 24 VDC	
Fluorocarbon V			

Coils with internal diode are available. Consult factory.