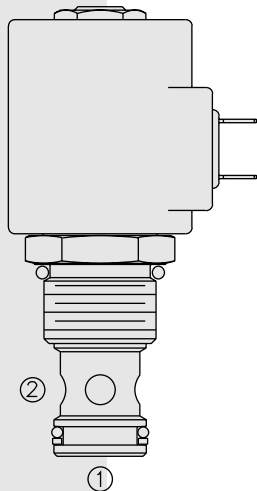


SOLENOID VALVES

SV12-28 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 **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: 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: VC12-2; See page 9.112.1

Cavity Tool: CT12-2XX; See page 8.600.1

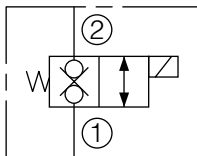
Seal Kit: SK12-2X-M; See page 8.650.1

Coil Nut: Part No. 7004400

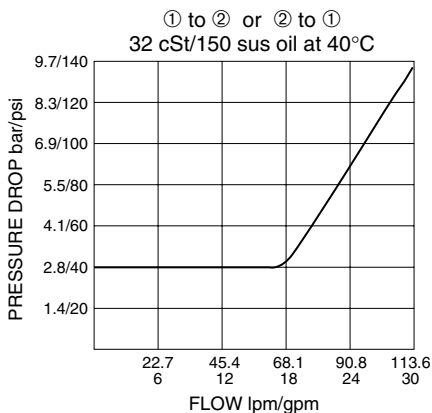
For E-Coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

SYMBOLS

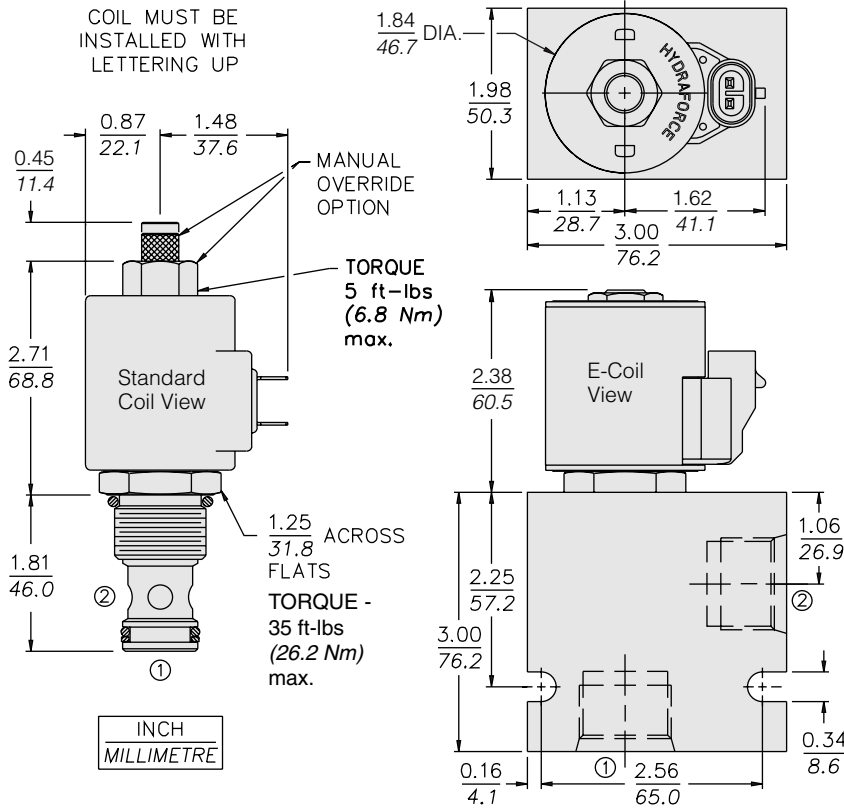
USAS/ISO:



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 240 bar (3500 psi); See page 8.012.1. 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. (0.9 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

Options		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	Termination (VAC)	
		24	24 VAC	Std. Coil	
		115	115 VAC	AG	DIN 43650
		230	230 VAC	AP	1/2 in. Conduit
		**Includes Std. Coil Nut		Termination (VDC)	
		† DS, DW or DL terminations only		E-Coil	
Porting		E-Coil		ER	Deutsch DT04-2P (IP69K Rated)
Cartridge Only	0	10	10 VDC	EY	Metri-Pack® 150 (IP69K Rated)
SAE 10	10T	12	12 VDC		
SAE 12	12T	20	20 VDC		
SAE 16	16T	24	24 VDC		
3/4 in. BSP*	6B				
1 in. BSP*	8B				
*BSP Body; U.K. Mfrs. Only					
Seals					
Buna N (Std.)	N				
Fluorocarbon	V				

Coils with internal diode are available. Consult factory.