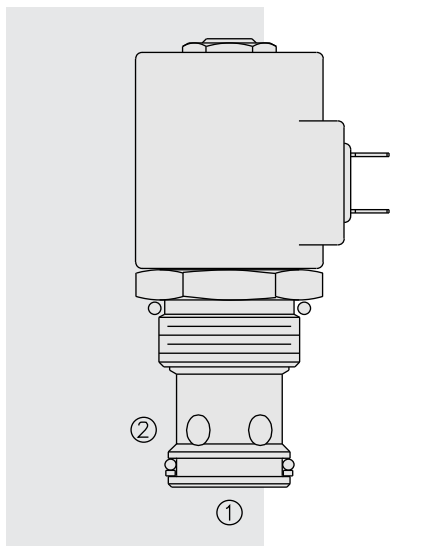


SV16-20 Poppet, 2-Way, Normally Closed



DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage.

OPERATION

When de-energized, the **SV16-20** acts as a check valve, allowing flow to pass from ① to ②, while blocking flow in the reverse direction.

When energized, the poppet lifts to open the ② to ① flow path. In this mode, flow from ① to ② is severely restricted. If this path is required, see model SV16-22, page 1.046.1.

Operation of Manual Override Option: To override, push button in, twist counter-clockwise 180° and release. In this position, the valve will remain open.

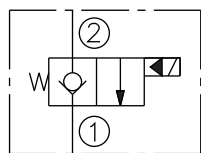
To return to normal operation, push button in, twist clockwise 180° and release. Override will be detented in this position.

FEATURES

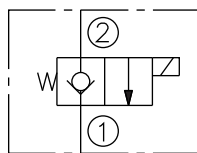
- Continuous-duty rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- Industry common cavity.

SYMBOLS

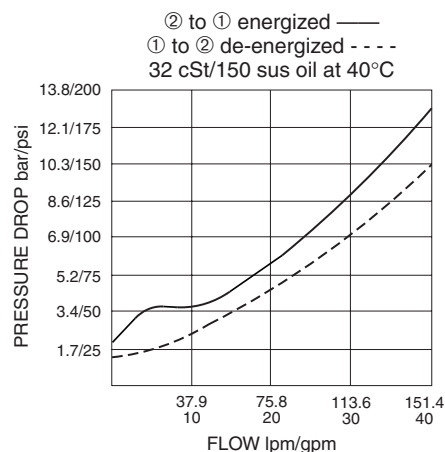
USASI:



ISO:



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 241 bar (3500 psi)

Proof Pressure: 350 bar (5075 psi)

Flow: See Performance Chart

Internal Leakage: 0.15 cc/minute (3 drops/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

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: VC16-2; See page 9.116.1

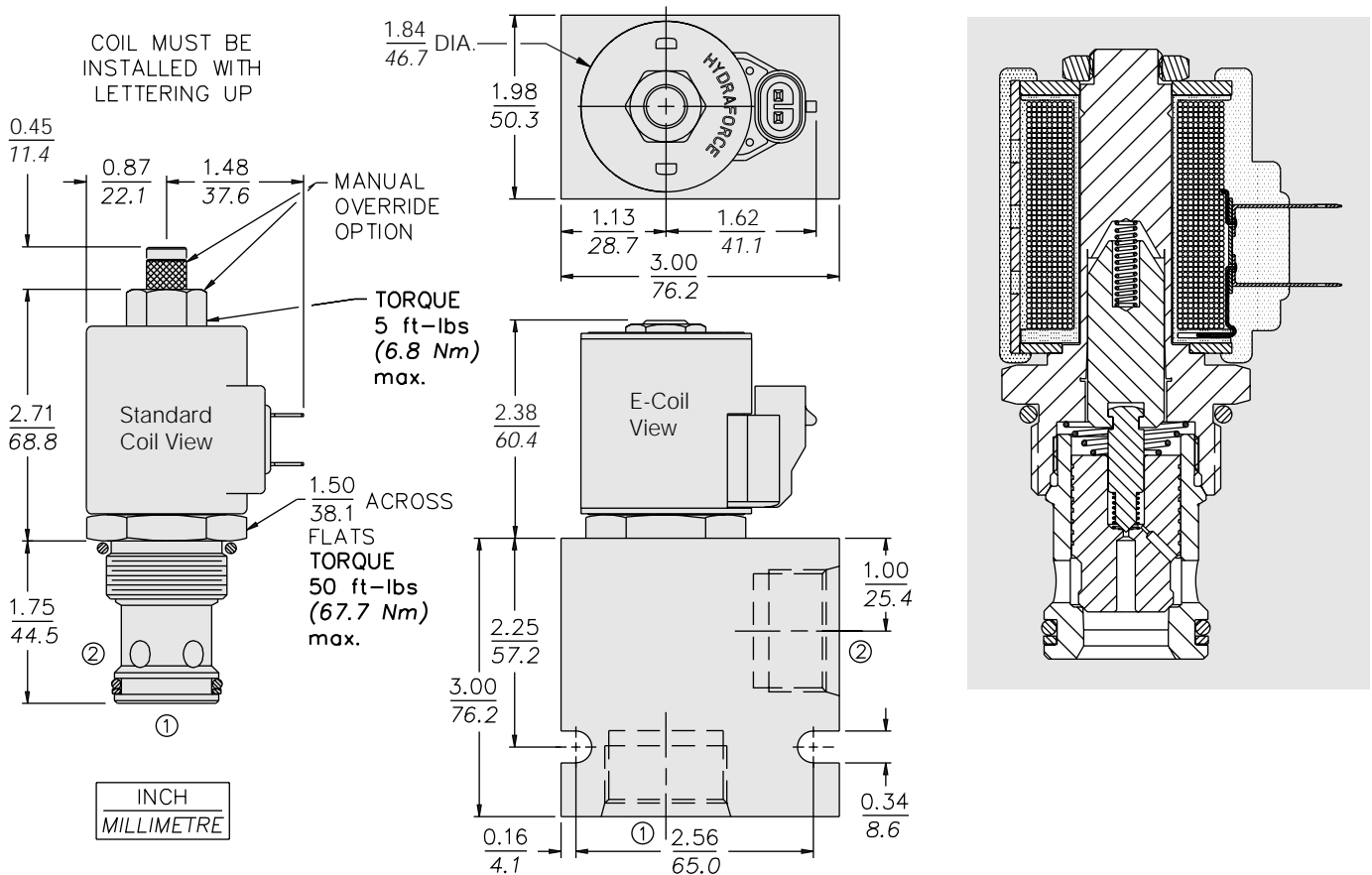
Cavity Tool: CT16-2XX; See page 8.600.1

Seal Kit: SK16-2X-T; 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.

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.31 kg. (0.69 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 8.016.1.

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

SV16-20 - - - - -			
Option	None (Blank)	Voltage	Termination (VDC)
Manual Override	M	Std. Coil	Std. Coil
Manual Override	Y	0 Less Coil**	DS Dual Spades
Manual Override	J	10 10 VDC†	DG DIN 43650
		12 12 VDC	DL Leadwires (2)
		24 24 VDC	DL/W Leads w/Weatherpak® Connectors
		36 36 VDC	DR Deutsch DT04-2P
		48 48 VDC	
		24 24 VAC	Termination (VAC)
		115 115 VAC	Std. Coil
		230 230 VAC	AG DIN 43650
			AP 1/2 in. Conduit
			Termination (VDC)
Porting	Cartridge Only 0		E-Coil
	SAE 12 12T	E-Coil	ER Deutsch DT04-2P (IP69K Rated)
	SAE 16 16T	10 10 VDC	EY Metri-Pack® 150 (IP69K Rated)
	3/4 in. BSP* 6B	12 12 VDC	
	1 in. BSP* 8B	20 20 VDC	
		24 24 VDC	
	*BSP Body; U.K. Mfr. Only		
Seals			
Buna N (Std.)	N		
Fluorocarbon	V		

**Includes Std. Coil Nut
† DS, DW or DL terminations only.

Coils with internal diode are available. Consult factory.