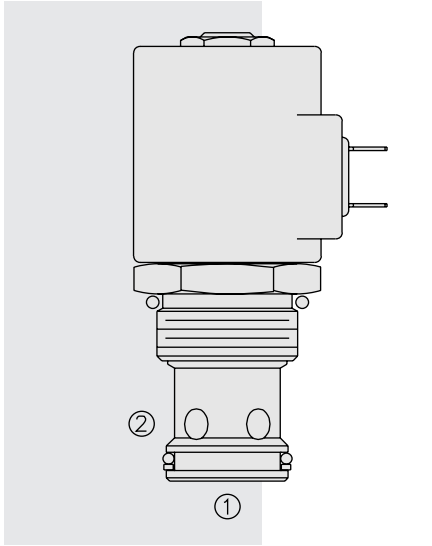


# SV16-20 Poppet, 2-Way, Normally Closed



## 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.

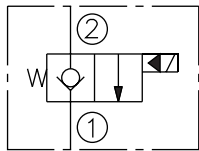
To return to normal operation, push button in, twist clockwise 180° and release. Override will be detented in this position.

## FEATURES

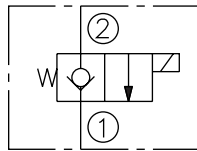
- Continuous-duty rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Unitized, molded coil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

## SYMBOLS

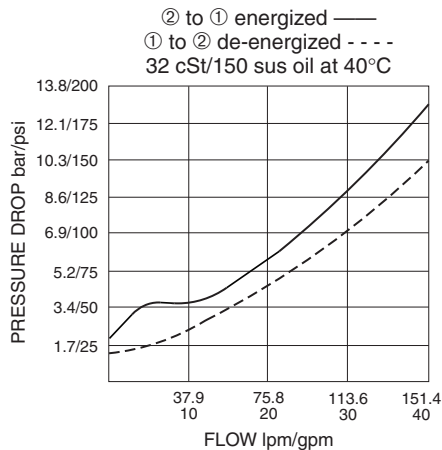
### USASI:



### 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

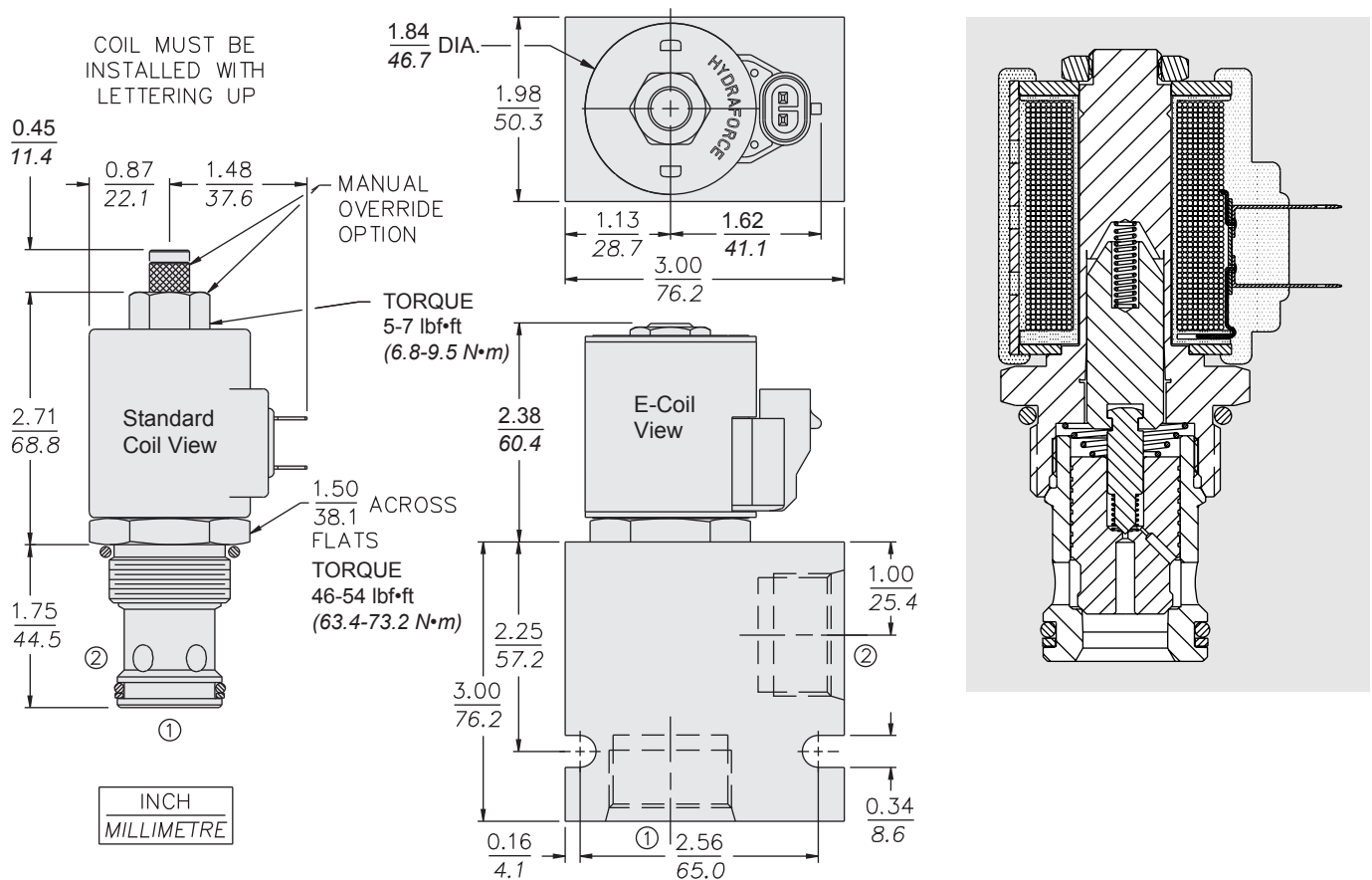
**Cavity Tool:** CT16-2XX; See page 8.600.1

**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**

<b>SV16-20</b>		-	-	-	-	-
<b>Option</b>						
None	(Blank)					
Manual Override	<b>M</b>					
Manual Override	<b>Y</b>					
Manual Override	<b>J</b>					
For Manual Override options see page 1.001.1						
<b>Porting</b>						
Cartridge Only	<b>0</b>					
SAE 16	<b>16T</b>					
<b>Seals</b>						
Buna N (Std.)	<b>N</b>					
Fluorocarbon	<b>V</b>					
<b>Voltage</b>						
<b>Std. Coil</b>						
0	Less Coil**					
10	10 VDC†					
12	12 VDC					
24	24 VDC					
36	36 VDC					
48	48 VDC					
24	24 VAC					
115	115 VAC					
230	230 VAC					
**Includes Std. Coil Nut						
† DS, DW or DL terminations only.						
<b>Termination (VDC)</b>						
<b>Std. Coil</b>						
<b>DS</b>	Dual Spades					
<b>DG</b>	DIN 43650					
<b>DL</b>	Leadwires (2)					
<b>DL/W</b>	Leads w/Weatherpak® Connectors					
<b>DR</b>	Deutsch DT04-2P					
<b>Termination (VAC)</b>						
<b>Std. Coil</b>						
<b>AG</b>	DIN 43650					
<b>AP</b>	1/2 in. Conduit					
<b>Termination (VDC)</b>						
<b>E-Coil</b>						
<b>ER</b>	Deutsch DT04-2P (IP69K Rated)					
<b>EY</b>	Metri-Pack® 150 (IP69K Rated)					
Coils with internal diode are available. Consult factory.						