

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

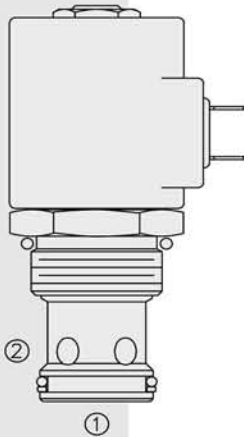
UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

## SOLENOID VALVES

# 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.

### 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

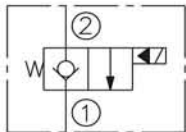
**Seal Kit:** SK16-2X-T; See page 8.650.1

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

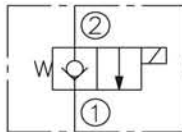
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

### SYMBOLS

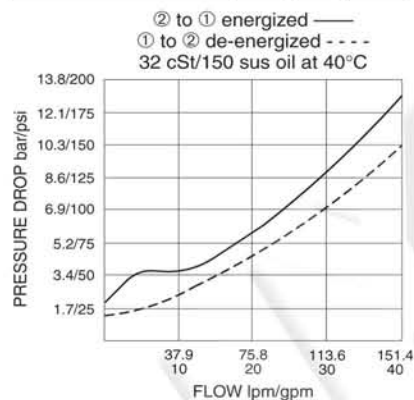
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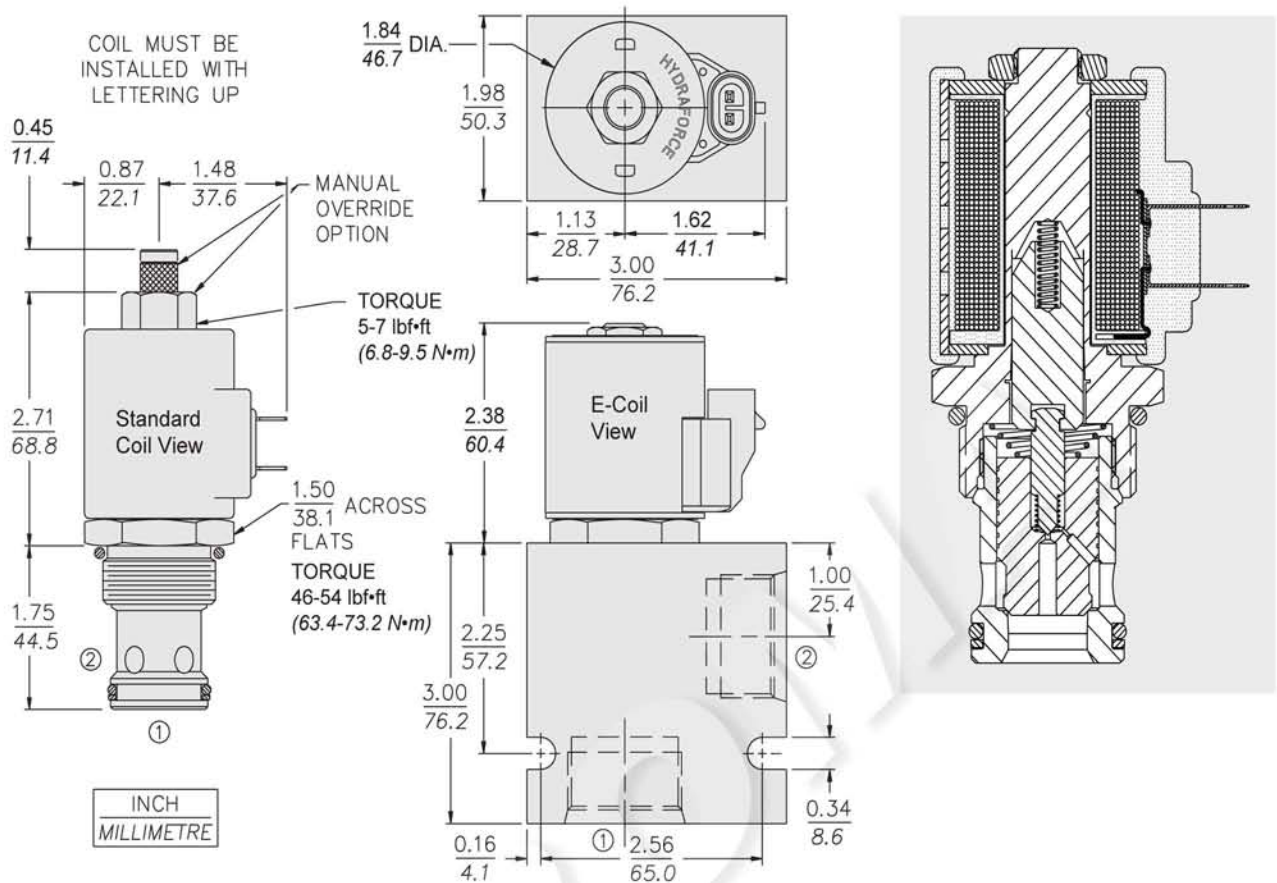
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### PERFORMANCE (Cartridge Only)



## 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

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