

Part number:

**HYDROMA**

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SISTEMS**

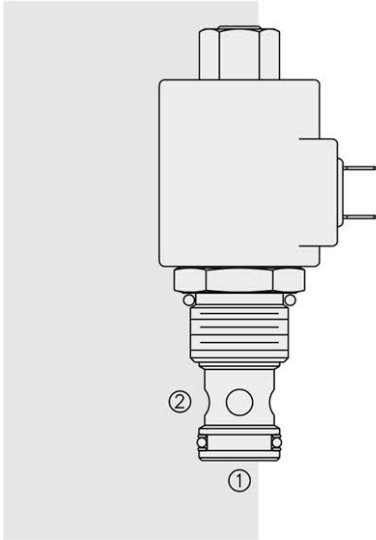
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**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

## SOLENOID VALVES

# SV12-29 Poppet, 2-Way, N.O., Bi-Directional Blocking



### DESCRIPTION

A solenoid-operated, two-way, normally open, 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 **SV12-29** allows flow in both directions. When energized, the valve's poppet closes on its seat, blocking 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: 60 msec.; De-energized: 15 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

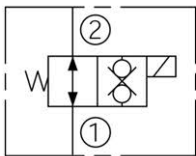
**Seal Kit:** SK12-2X-M; See page 8.650.1

**Coil Nut:** Part No. 7004420

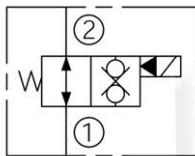
For E-Coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

### SYMBOLS

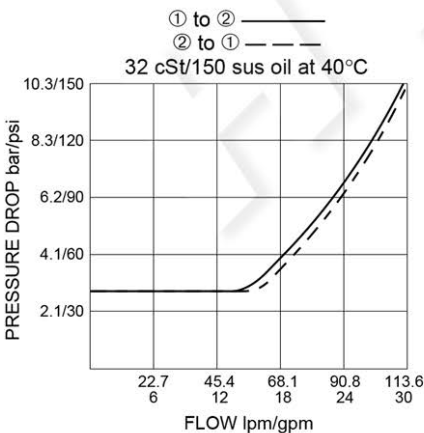
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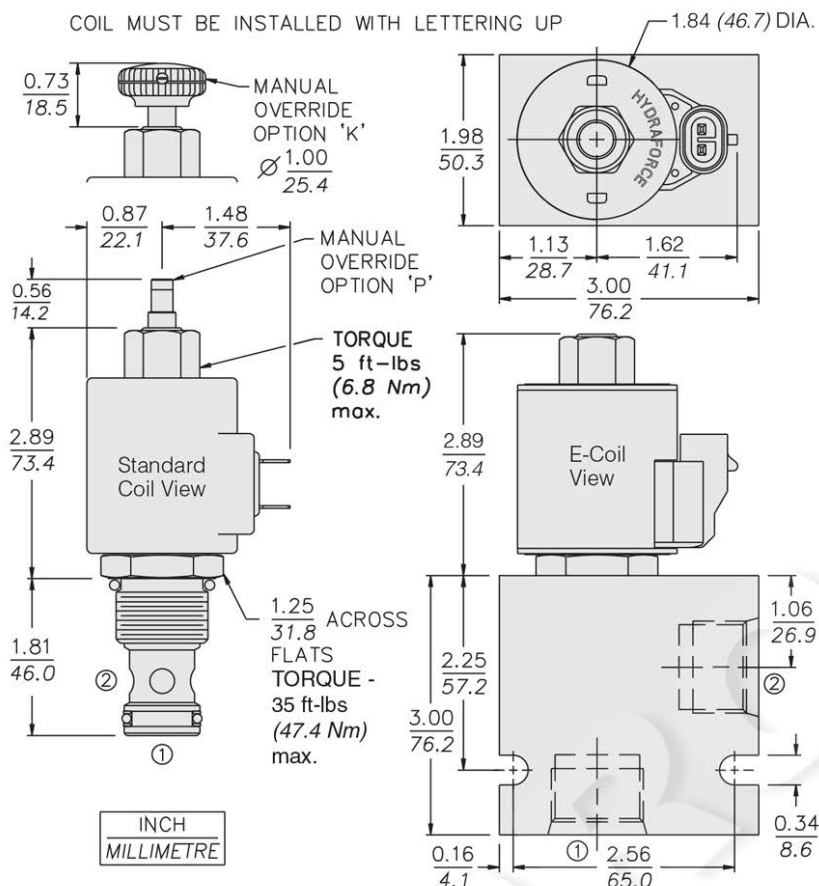
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### PERFORMANCE (Cartridge Only)



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.25 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

### SV12-29

Option	Voltage	Termination (VDC)
None (Blank)	<b>Std. Coil</b>	<b>Std. Coil</b>
Manual Override without knob	0 Less Coil**	DS Dual Spades
Manual Override with knob	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	<b>Termination (VAC)</b>
	115 115 VAC	<b>Std. Coil</b>
	230 230 VAC	AG DIN 43650
		AP 1/2 in. Conduit
		<b>Termination (VDC)</b>
		<b>E-Coil</b>
	10 10 VDC	ER Deutsch DT04-2P (IP69K Rated)
	12 12 VDC	EY Metri-Pack® 150 (IP69K Rated)
	20 20 VDC	
	24 24 VDC	

For Manual Override options see page 1.001.1

- Porting**
- Cartridge Only 0
  - SAE 10 10T
  - SAE 12 12T
  - SAE 16 16T
  - 3/4 in. BSP\* 6B
  - 1 in. BSP\* 8B
- \*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.