SV10-28 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 SV10-28 blocks flow in both directions. When energized, the valve's poppet opens on its seat, allowing flow from ➁ to ➀ or ➀ to ➁.

Note: Minimum differential pressure required 2.8 bar (20 psid)

FEATURES
• Bidirectional operation.
• Manual override options.
• Screen option.
• Optional coil voltages and terminations.
• Cartridges are voltage interchangeable.
• Optional waterproof E-Coils rated up to IP69K.
• Hardened seat for long life and low leakage.
• Continuous-duty rated coil.
• Industry common cavity.

RATINGS
Operating Pressure: 241 bar (3500 psi)
Minimum Differential Pressure Required: 2.8 bar (20 psid) See Performance graph.
Flow: Flow required to reseat the internal poppet check balls when increasing the differential pressure across a de-energized valve from zero psid: 2.8 lpm (0.75 gpm) maximum
Maximum Internal Leakage: 0.25 cc/minute (5 drops/minute) max. at 207 bar (3000 psi)
Force Required to Manually Actuate SV10-28Y/J: 15 kg (33 lb)
Operating Temperature: -40 to 100 °C (-40 to 212 °F) with standard Buna seals; -26 to 204 °C (-15 to 400 °F) with fluorocarbon seals; -54 to 107 °C (-65 to 225 °F) with polyurethane seals
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: VC10-2; See page 9.110.1
Cavity Tool: CT10-2XX; See page 8.600.1
Seal Kit: SK10-2X-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.
**DIMENSIONS**

![Diagram of SV10-28 dimensions]

**MATERIALS**

- **Cartridge**: Weight: 0.15 kg (0.34 lb) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

- **Standard Ported Body**: Weight: 0.16 kg (0.35 lb) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1

- **Standard Coil**: Weight: 0.27 kg (0.60 lb) Unitized thermoplastic encapsulated, Class H high temperature magnet wire. See page 3.200.1

- **E-Coil**: Weight: 0.41 kg (0.9 lb) 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**

**SV10-28**

- **Manual Override Option**
  - None (Blank)
  - Manual Override M
  - Manual Override Y
  - Manual Override J

- **Screen Option**
  - None (Blank)
  - Screen Option S

- **Porting**
  - Cartridge Only
  - SAE 8 8T
  - 3/8 in. BSP 3B

- **Seals**
  - Buna N (Std.) N
  - Fluorocarbon V
  - Polyurethane P

- **Voltage**
  - Std. Coil
  - 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**

- **Termination (VDC)**
  - Std. Coil
  - DS Dual Spades
  - DG DIN 43650
  - DL Leadwires (2)
  - DL/W Leads w/Weatherpak® Connectors
  - DR Deutsch DT04-2P

- **Termination (VAC)**
  - Std. Coil
  - AG DIN 43650
  - AP 1/2 in. Conduit

Coils with internal diode are available. Consult factory.