SV08-21  Poppet, 2-Way, Normally Open

DESCRIPTION
A solenoid-operated, 2-way, piloted, poppet-type, normally open, screw-in, hydraulic cartridge valve designed for low leakage in load-holding applications.

OPERATION
When de-energized, the SV08-21 allows flow from 2 to 1. Flow from 1 to 2 is severely restricted in this mode. If the 2 to 1 path is required see model SV08-23, page 1.050.1.

When energized, the valve’s poppet closes on its seat, blocking flow from 2 to 1. In this mode the cartridge will allow 1 to 2 flow after overcoming the solenoid force (requires 3.4 to 10.3 bar / 50 to 150 psi).

Operation of Manual Override Option: To override, push and hold override button.

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

RATINGS
Operating Pressure: 207 bar (3000 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
Response Time: First indication of change of state with 100% voltage supplied at 80% of nominal flow rating: Energized: 50 msec.; De-energized: 16 msec.
Initial Coil Current Draw at 20°C: Standard Coil: 1.2 amps at 12 VDC; 0.13 amps at 115 VAC (full wave rectified).
E-Coil: 1.4 amps at 12 VDC; 0.7 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: VC08-2; See page 9.108.1
Cavity Tool: CT08-2XX; See page 8.600.1
Seal Kit: SK08-2X-T; See page 8.650.1
Coil Nut: Part No. 7004410;
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.
**SV08-21**

**DIMENSIONS**

**Cartridge:**
- Weight: 0.09 kg. (0.20 lbs.)
- Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and back-up standard.

**Standard Ported Body:**
- Weight: 0.16 kg. (0.35 lbs.)
- Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi).
- Ductile iron bodies available; dimensions may differ. See page 8.008.1

**Standard Coil:**
- Weight: 0.11 kg. (0.25 lbs.)
- Unitized thermoplastic encapsulated, Class H high temperature magnetwire; See page 3.200.1

**E-Coil:**
- Weight: 0.14 kg. (0.3 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.

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

**TO ORDER**

**SV08-21**

**Option**
- None (Blank)
- Manual Override without Knob: P
- Manual Override with Knob: K

**Porting**
- Cartridge Only: 0
- SAE 8: 4
- 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: 24
- 24 VAC: 115
- 115 VAC: 230
- 36 VDC: 48
- 48 VDC: 24
- 24 VAC: 230
- 115 VAC: 230

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

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

**Termination (VDC)**
- E-Coil: ER
  - Deutsch DT04-2P (IP69K Rated)
  - Metri-Pack® 150 (IP69K Rated)

Coils with internal diode are available. Consult factory.

**Note:**
- **Option:** See page 3.400.1 for all E-Coil retrofit applications.
- **Termination (VDC):** See page 3.400.1 for all E-Coil retrofit applications.
- **Termination (VAC):** See page 3.400.1 for all E-Coil retrofit applications.