A direct-acting, spool-type, two-position, three-way, directional control valve. It is a drop-in, flange-mounted, cartridge type valve for use with general purpose hydraulic fluids. The coil is an integral part of the valve and is not serviceable.

OPERATION
When de-energized, the SV98-G38 allows flow from 1 to 3 while blocking flow at 2. When energized, the spool shifts to open from 2 to 1, while blocking flow at 3.

FEATURES
• Bi-directional operation.
• Economical drop-in style.
• Reduced leakage.
• Fast response.
• Low pressure drop.
• Corrosion-resistant plating.
• Inlet port screen option for additional resistance to contamination.
• Higher flow capacity at lower temperatures.
• Integral waterproof coil standard.
• See page 3.400.1 for a description of tests conducted to verify coil waterproofing.
• Coil voltage range from 10 to 28 VDC.
• Top-mounted coil with several push-on termination options.
• Round flange with optional mounting plates provides more options for orientation.
• Retrofit mounting options also available.

RATINGS
Operating Pressure: 45 bar (650 psi) all ports
Burst Pressure: 45 bar (3625 psi) - all ports pressurized
Flow Rating: 30 lpm (8 gpm)
Internal Leakage: 90 ml/minute (5.5 cu. in./minute) at 45 bar (650 psi)
Cycle Life: 10 million cycles
Fluid Temperature: -40 to 149 °C (-40 to 300 °F) with HBNR seals; -26 to 204 °C (-15 to 400 °F) with fluorocarbon seals
Ambient Temperature: -40 to 120 °C (-40 to 248 °F)
Coil Duty Rating: Continuous from 75% to 115% of nominal voltage
Minimum Pull-in Voltage: 75% of nominal voltage at 120 °C (248 °F) ambient
Response Time: First indication of change of state with 100% voltage at flow rating: Pull-in: 42 ms; Drop-out: 29 ms.
Valve Inductance: 65 mH (10V), 98 mH (12V), 146 mH (14V), 273 mH (20V), 418 mH (24V), 620 mH (28V)
Environmental Rating: IP69k. 1000-hour salt spray per ASTM B117.
Filtration: See page 9.010.1
Fluids: Mineral-based or synthetic hydraulic fluid 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: Flange-mounted. Standard mounting configuration shown. Two- and three-valve mounting plate options are also available. Retrofit mounting options also available. Part numbers for body, flange, and mounting screws will differ. See page 8.500.5
Flange Mounting Plate: Part No. 4595096 (sold separately)
Mounting Screws: M5 x 0.8 x 12 mm long; Part No. 4002609 (sold separately)
Mounting Screw Torque: 2.2 to 3.0 ft.lbs. (3 to 4 Nm)
Cavity: VC-G028
Cavity Tool: CT-G028X-X-G; See page 8.600.1
Seal Kit: SK-G028-X; See page 8.650.1
DIMENSIONS

- **Mounting plate** sold separately
- **Mounting screws** sold separately

MATERIALS

**Cartridge including Coil:** Weight: 0.26 kg (0.58 lb) Steel with hardened work surfaces. Zinc-Nickel plated exposed surfaces. HNBR O-rings standard. Class N high-temperature magnet wire, with zinc-nickel plated shell.

**Standard Ported Body:** Weight: 0.399 kg (0.88 lb) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Must be ordered separately: Part No. 71612X0. See page 8.010.1.

**Note:** Retrofit G3 line bodies and mounting plates are also available. Part numbers will differ. See page 8.500.5 or contact HydraForce application engineering for details.

**Mounting Plate:** Must be ordered separately: Part No. 4595096

**Mounting Screws:** Must be ordered separately: Part No. 4002609

TO ORDER

**SV98-G38**

- **Option**
  - None (Blank)
  - 233 μm screen S

- **Porting**
  - Cartridge Only 0
  - SAE 8 8T

- **Seals**
  - Hydrogenated Nitrile (HNBR) G
  - Fluorocarbon V

- **Diode**
  - (Blank) None
  - Z Bidirectional Zener Diode

- **Termination**
  - ER Deutsch DT04-2P
  - EJ AMP Junior Timer
  - EY2A Metripack 150-2

- **Voltage**
  - 10 VDC
  - 12 VDC
  - 14 VDC
  - 20 VDC
  - 24 VDC
  - 28 VDC

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