**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.
- Utilized, 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.
DIMENSIONS

COIL MUST BE INSTALLED WITH LETTERING UP

TORQUE
5 ft-lbs (6.8 Nm) max.

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
None (Blank)
Manual Override without knob P
Manual Override with knob K

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
† DS, DW or DL terminations only.

Seals
Buna N (Std.) N
Fluorocarbon V

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

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

Coils with internal diode are available. Consult factory.