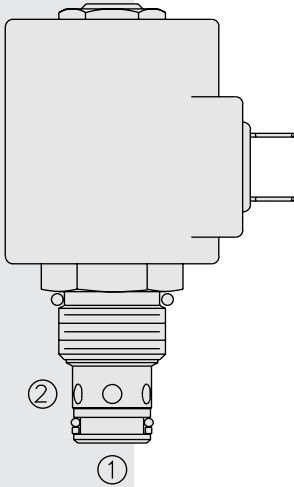


SV10-20 Poppet, 2-Way, Normally Closed



DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage.

OPERATION

When de-energized, the **SV10-20** acts as a check valve, allowing flow to pass from 1 to 2, while blocking flow in the reverse direction. With the sensor option, the neutral sensor will signal ON or HIGH.

When energized, the poppet lifts to open the 2 to 1 flow path. In this mode, flow from 1 to 2 is severely restricted. (If this path is required, see model SV10-22, page 1.044.1.) With the sensor option, the neutral sensor will signal LOW or OFF.

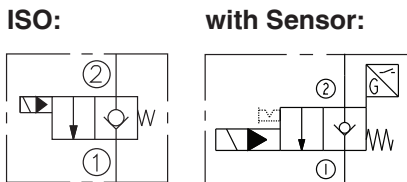
Operation of Manual Override Option: To override, push button in, twist counter-clockwise 180° and release. In this position, the valve will remain open.

To return to normal operation, push button in, twist clockwise 180° and release. Override will be detented in this position.

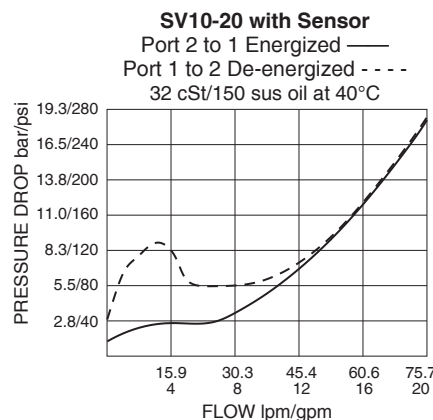
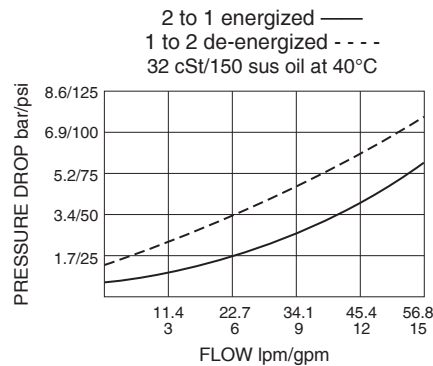
FEATURES

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

SYMBOLS



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 345 bar (5000 psi)

Flow: Up to 56.8 lpm (15 gpm); see performance chart

Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at 240 bar (3500 psi)

Temperature: -40 to 100°C (-40° to 212°F) with standard Buna N seals
-26 to 204°C (-15°F to 400°F) with Fluorocarbon 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: 40 msec.; De-energized: 32 msec.
Response Time with Sensor: 53 ms pull-in, 110 ms drop-out

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

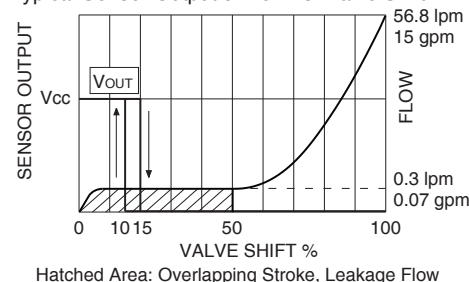
Installation: No restrictions; See page 9.020.1

Cavity: VC10-2; See page 9.110.1; **Cavity Tool:** CT10-2XX; See page 8.600.1

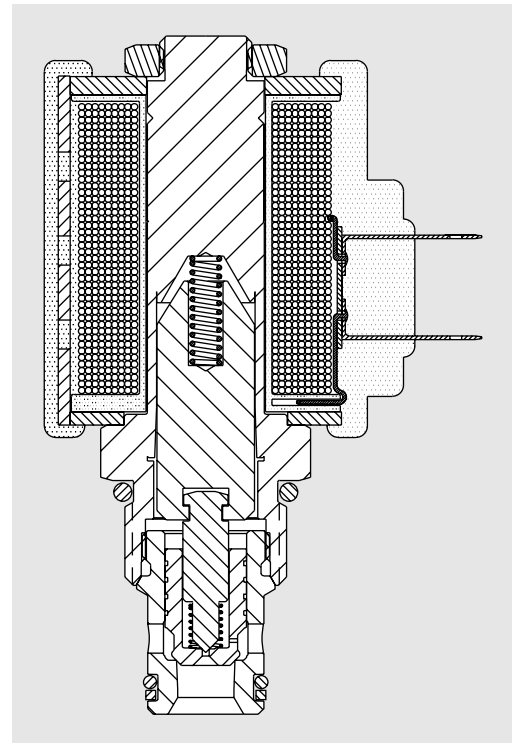
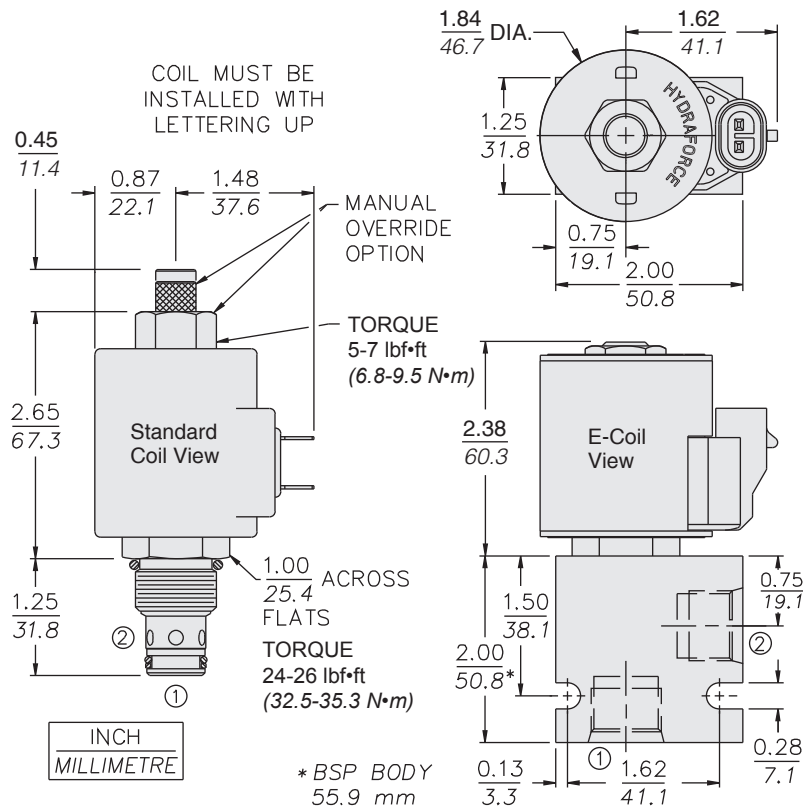
Seal Kit: SK10-2X-T; See page 8.650.1

Coil Nut: Part No. 7004400

Typical Sensor Output & Flow vs. Valve Shift



DIMENSIONS



Dimensions will differ significantly with Sensor Option; see page 3.010.1.

MATERIALS

Cartridge: Weight: 0.17 kg. (0.37 lbs.); Weight with Sensor option: 0.49 kg. (1.07 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.16 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 8.010.1.

D-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. See page 3.400.1.

TO ORDER

SV10-(P)20(A)

