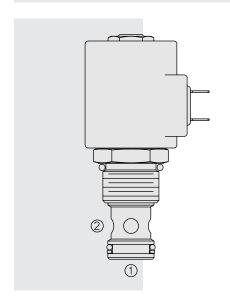
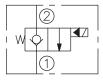
# SV12-20 Poppet, 2-Way, Normally Closed

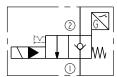


## **SYMBOLS**

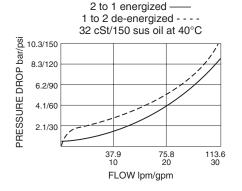
#### ISO:

### with Sensor:

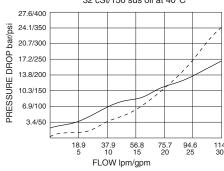




#### PERFORMANCE (Cartridge Only)



#### SV12-20 with Sensor Port 2 to 1 Energized - - - -Port 1 to 2 De-energized — 32 cSt/150 sus oil at 40°C



#### 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 **SV12-20** acts as a check valve, allowing flow to pass from 1 to 2, while blocking flow in the reverse direction.

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 SV12-22, page 1.045.1.

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

To return to normal operation, push button in, twist clockwise  $180^{\circ}$  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.
- Cost effective cavity.

#### **RATINGS**

Operating Pressure: 240 bar (3500 psi) Proof Pressure: 345 bar (5000 psi)

Flow: 30 gpm (114 lpm); see performance chart

Internal Leakage: 0.15 cc/minute (3 drops/minute) max. 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: 40 msec.; De-energized: 80 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

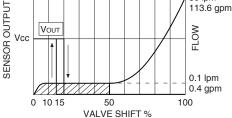
Installation: No restrictions; See page 9.020.1

Cavity: VC12-2; See page 9.112.1 Cavity Tool: CT12-2XX; See page 8.600.1 Seal Kit: SK12-2X-T; 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.



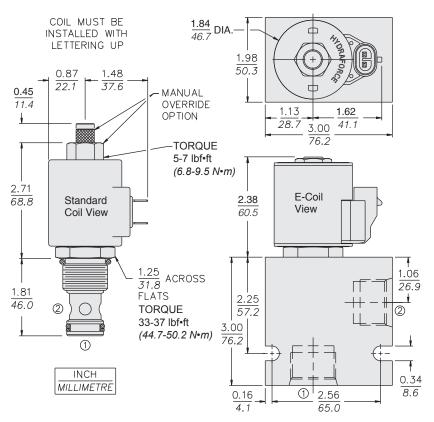


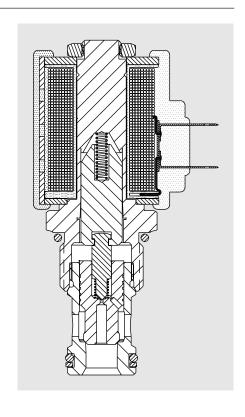
Hatched Area: Overlapping Stroke, Leakage Flow



## SV12-20

## **DIMENSIONS**





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

#### **MATERIALS**

Cartridge: Weight: 0.33 kg. (0.72 lbs.); Weight with Sensor option: 0.58 kg. (1.27 lbs.); Steel with hardened work surfaces. Zincplated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

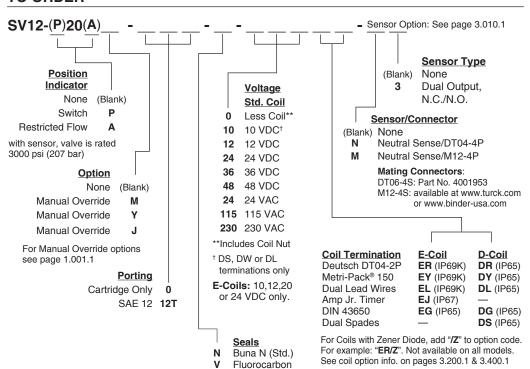
#### **Standard Ported Body:**

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.

**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**



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