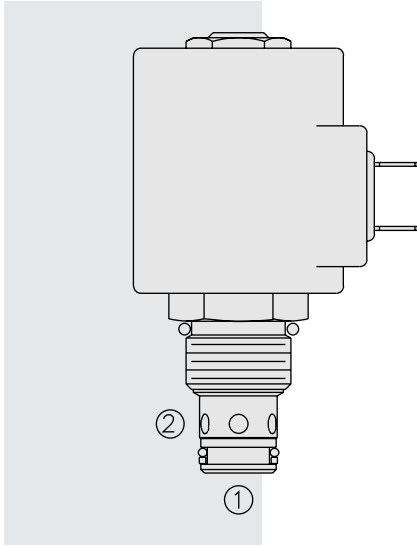


# SV10-22 Poppet, 2-Way, Normally Closed



## DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed for low leakage blocking and load holding applications.

## OPERATION

When de-energized, the **SV10-22** acts as a check valve, allowing flow to pass from 1 to 2, while blocking flow from 2 to 1. With the sensor option, the neutral sensor will signal ON or HIGH.

When energized, the 2 to 1 flow path opens. In this mode, flow is also allowed from 1 to 2. With the sensor option, the neutral sensor will signal LOW or OFF.

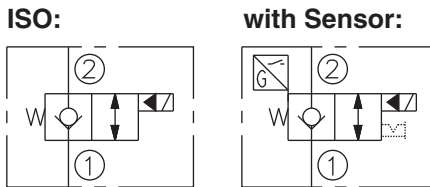
**Operation of Manual Override Option:** To override, push button in, twist counter-clockwise 180° and release. In this position, the valve will remain open.

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

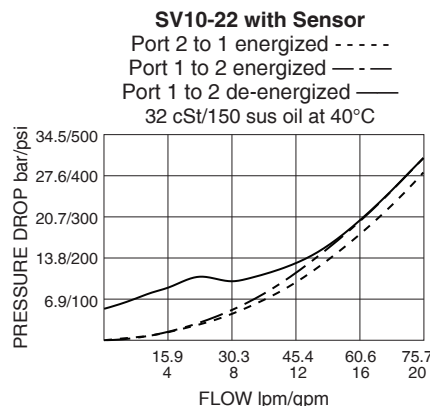
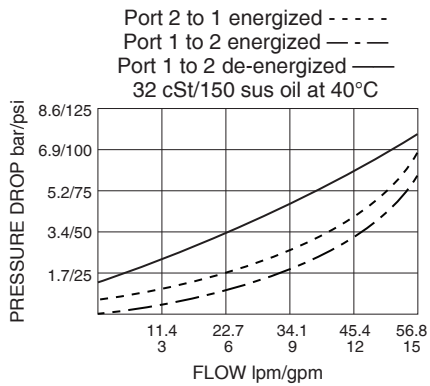
## FEATURES

- 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

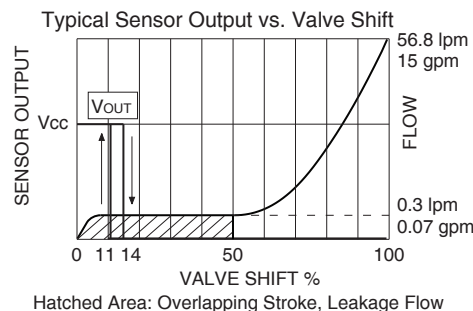


## PERFORMANCE (Cartridge Only)

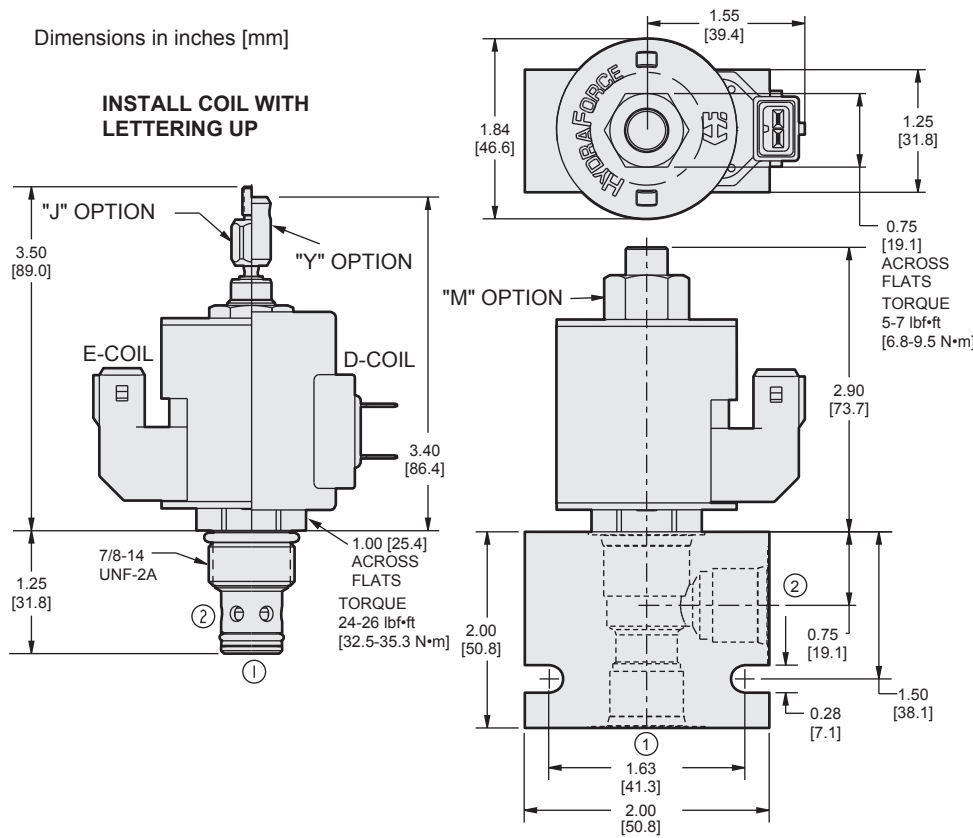


## RATINGS

- Operating Pressure:** 240 bar (3500 psi)
- Proof Pressure:** 350 bar (5075 psi)
- Flow:** 56.8 lpm (15 gpm); see performance chart
- Internal Leakage:** 0.15 cc/minute (3 drops/minute) max. at 240 bar (3500 psi)
- Temperature:** with standard Buna N seals: -40 to 100 °C (-40 to 212 °F); with Fluorocarbon seals: -26 to 204 °C (-15 to 400 °F)
- 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: 68 ms pull-in, 50 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



**DIMENSIONS**



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

**MATERIALS**

**Cartridge:** Weight: 0.17 kg (0.37 lb); Weight with Sensor option: 0.49 kg (1.07 lb); 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 lb); 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 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire. See page 3.200.1.

**E-Coil:** Weight: 0.41 kg (0.9 lb); Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors. See page 3.400.1.

**TO ORDER**

**SV10-(P)22(A)**

<p><b>Position Indicator</b></p> <p>None (Blank)</p> <p>Switch <b>P</b></p> <p>Restricted Flow <b>A</b></p> <p>with sensor, valve is rated 3000 psi (207 bar)</p> <p><b>Option</b></p> <p>None (Blank)</p> <p>Screen <b>S</b></p> <p>Manual Override <b>M</b></p> <p>Manual Override <b>Y</b></p> <p>Manual Override <b>J</b></p> <p>For Manual Override options see page 1.001.1</p> <p><b>Porting</b></p> <p>Cartridge Only <b>0</b></p> <p>SAE 8 <b>8T</b></p> <p>3/8 in. BSP* <b>3B</b></p> <p>*BSP Body; U.K. Mfr. Only</p>	<p><b>Voltage Std. Coil</b></p> <p><b>0</b> Less Coil**</p> <p><b>10</b> 10 Vdc†</p> <p><b>12</b> 12 Vdc</p> <p><b>24</b> 24 Vdc</p> <p><b>36</b> 36 Vdc</p> <p><b>48</b> 48 Vdc</p> <p><b>24</b> 24 Vac</p> <p><b>115</b> 115 Vac</p> <p><b>230</b> 230 Vac</p> <p>**Includes Coil Nut</p> <p>† DS, DW or DL terminations only</p> <p><b>E-Coils:</b> 10, 12, 20 or 24 Vdc only.</p> <p><b>Seals</b></p> <p><b>N</b> Buna N (Std.)</p> <p><b>V</b> Fluorocarbon</p>	<p>Sensor Option: See page 3.010.1</p> <p>(Blank) None</p> <p><b>3</b> Dual Output, N.C./N.O.</p> <p><b>Sensor Type</b></p> <p>(Blank) None</p> <p><b>N</b> Neutral Sense/DT04-4P</p> <p><b>M</b> Neutral Sense/M12-4P</p> <p><b>Mating Connectors:</b></p> <p>DT06-4S: Part No. 4001953</p> <p>M12-4S: available at <a href="http://www.turck.com">www.turck.com</a> or <a href="http://www.binder-usa.com">www.binder-usa.com</a></p> <p><b>Coil Termination</b></p> <p>Deutsch DT04-2P <b>ER</b> (IP69K) <b>DR</b> (IP65)</p> <p>Metri-Pack® 150 <b>EY</b> (IP69K) <b>DY</b> (IP65)</p> <p>Dual Lead Wires <b>EL</b> (IP69K) <b>DL</b> (IP65)</p> <p>Amp Jr. Timer <b>EJ</b> (IP67) —</p> <p>DIN 43650 <b>EG</b> (IP65) <b>DG</b> (IP65)</p> <p>Dual Spades — <b>DS</b> (IP65)</p> <p>For Coils with Zener Diode, add "Z" to option code. For example: "ER/Z". Not available on all models. See coil option info. on pages 3.200.1 &amp; 3.400.1</p>
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