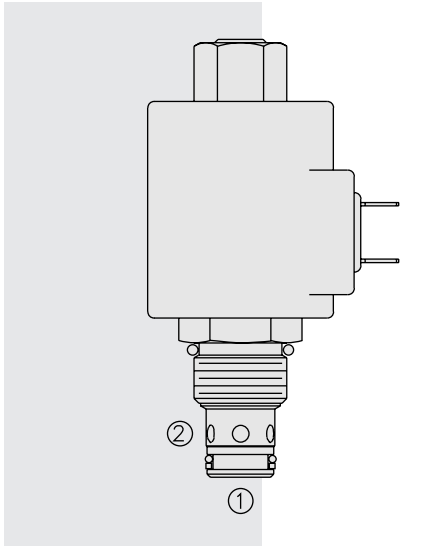


SV10-23 Poppet, 2-Way, Normally Open



DESCRIPTION

A solenoid-operated, two-way, poppet-type, normally open, screw-in, hydraulic cartridge valve.

OPERATION

When de-energized, the **SV10-23** allows bidirectional flow from 2 to 1. With the sensor option, the neutral sensor will signal OFF or LOW.

When energized, the valve's poppet closes to block flow from 2 to 1. In this mode, the cartridge allows free reverse flow from 1 to 2 after overcoming the solenoid force (requires 3.4 to 10.3 bar / 50 to 150 psi). With the sensor option, the neutral sensor will signal ON or HIGH.

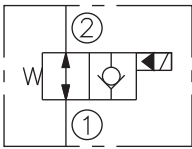
Operation of Manual Override Option: To override, push and hold override button.

FEATURES

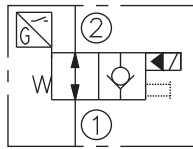
- Continuous-duty rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Manual override option.
- Unitized, molded coil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

SYMBOLS

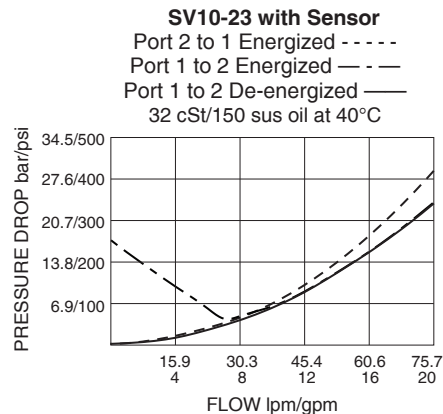
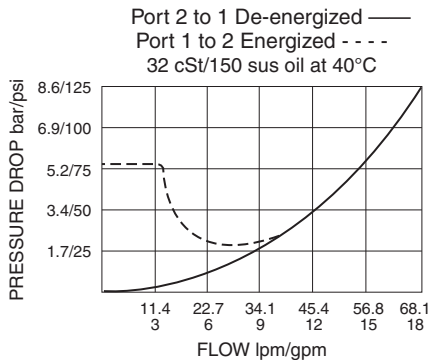
ISO:



with Sensor:



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 207 bar (3000 psi)

Proof Pressure: 345 bar (5000 psi)

Flow: 68.1 lpm (18 gpm); see performance chart

Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at 207 bar (3000 psi)

Temperature: with standard Buna N seals: -40 to 100°C (-40° to 212°F);
with Fluorocarbon seals: -26 to 204°C (-15°F 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: 80 msec.; De-energized: 30 msec.

Response Time with Sensor: 158 ms pull-in, 57 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 207 bar (3000 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

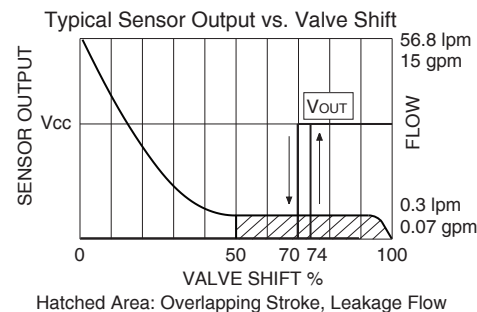
Installation: No restrictions; See page 9.020.1

Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

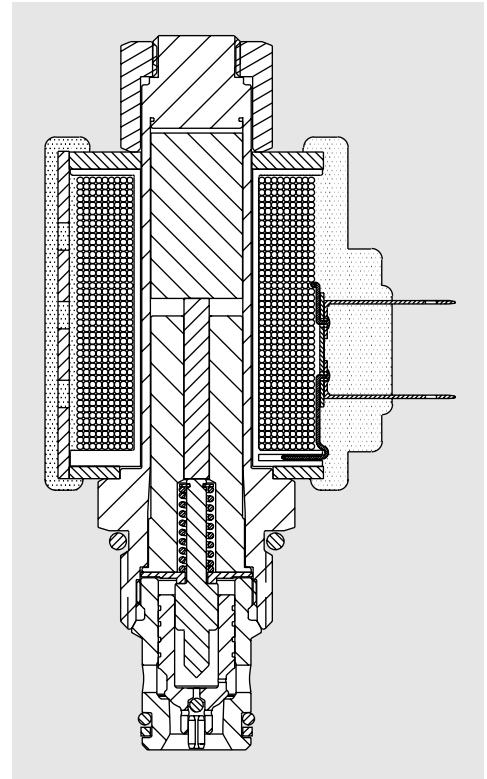
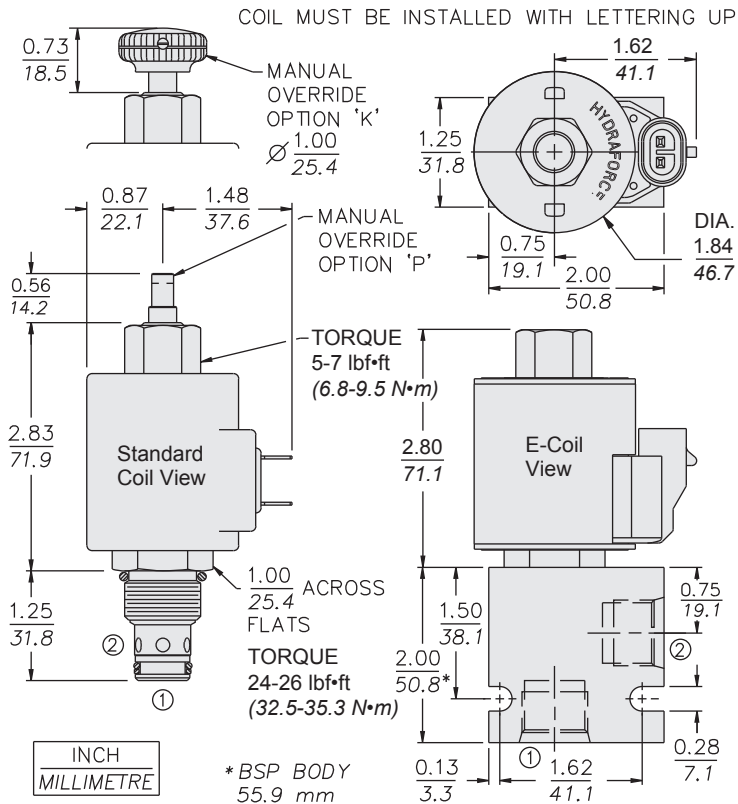
Seal Kit: SK10-2X-T; See page 8.650.1

Coil Nut: Part No. 7004420



SV10-23

DIMENSIONS



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

MATERIALS

Cartridge: Weight: 0.16 kg. (0.35 lbs.); Weight with Sensor option: 0.52 kg. (1.15 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)23(A) - - - - - Sensor Option: See page 3.010.1

<p>Position Indicator</p> <p>None (Blank)</p> <p>Switch P</p> <p>Restricted Flow A</p>	<p>Option</p> <p>None (Blank)</p> <p>152µ Screen S</p> <p>Manual Override P</p> <p>Manual Override K</p>	<p>Porting</p> <p>Cartridge Only 0</p> <p>SAE 8 8T</p> <p>3/8 in. BSP* 3B</p> <p>*BSP Body; U.K. Mfr. Only</p>	<p>Voltage</p> <p>Std. Coil</p> <p>0 Less Coil**</p> <p>10 10 VDC†</p> <p>12 12 VDC</p> <p>24 24 VDC</p> <p>36 36 VDC</p> <p>48 48 VDC</p> <p>24 24 VAC</p> <p>115 115 VAC</p> <p>230 230 VAC</p>	<p>Sensor Type</p> <p>(Blank) None</p> <p>3 Dual Output, N.C./N.O.</p>	<p>Sensor/Connector</p> <p>(Blank) None</p> <p>N Neutral Sense/DT04-4P</p> <p>M Neutral Sense/M12-4P</p>	<p>Mating Connectors:</p> <p>DT06-4S: Part No. 4001953</p> <p>M12-4S: available at www.turck.com or www.binder-usa.com</p>
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For Manual Override options see page 1.001.1

**Includes Coil Nut

† DS, DW or DL terminations only

E-Coils: 10,12,20 or 24 VDC only.

<p>Seals</p> <p>N Buna N (Std.)</p> <p>V Fluorocarbon</p>	<p>Coil Termination</p> <p>Deutsch DT04-2P ER (IP69K)</p> <p>Metri-Pack® 150 EY (IP69K)</p> <p>Dual Lead Wires EL (IP69K)</p> <p>Amp Jr. Timer EJ (IP67)</p> <p>DIN 43650 EG (IP65)</p> <p>Dual Spades —</p>	<p>E-Coil</p> <p>ER (IP69K)</p> <p>EY (IP69K)</p> <p>EL (IP69K)</p> <p>EJ (IP67)</p> <p>EG (IP65)</p> <p>—</p>	<p>D-Coil</p> <p>DR (IP65)</p> <p>DY (IP65)</p> <p>DL (IP65)</p> <p>—</p> <p>DG (IP65)</p> <p>DS (IP65)</p>
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For Coils with Zener Diode, add "Z" to option code. For example: "ERZ". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1