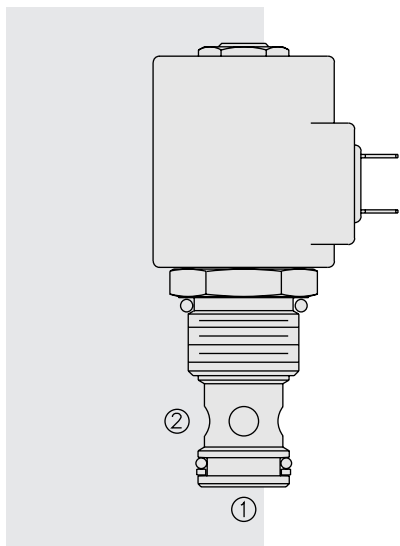


SV12-22 Poppet, 2-Way, Normally Closed



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 **SV12-22** 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 is also allowed from 1 to 2.

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.
- Unitized, molded coil design.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Cost effective cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 390 bar (5700 psi)

Flow: 114 lpm (30 gpm); 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 ms; De-energized: 80 ms

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

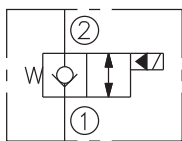
Seal Kit: SK12-2X-T; See page 8.650.1

Coil Nut: Part No. 7004400;

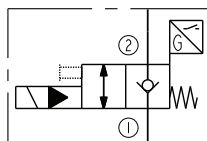
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

SYMBOLS

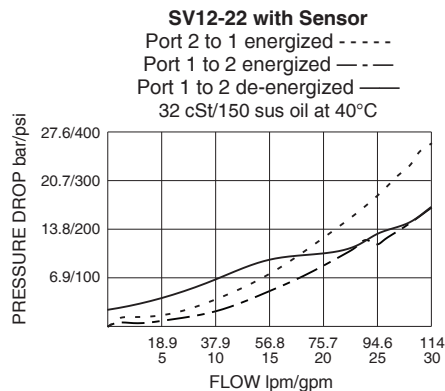
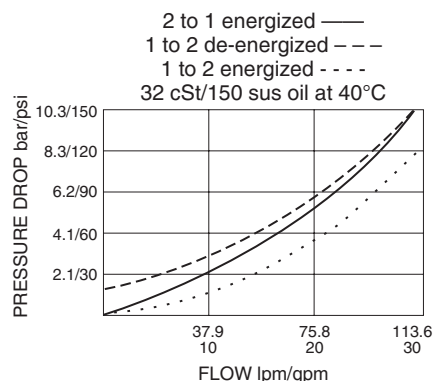
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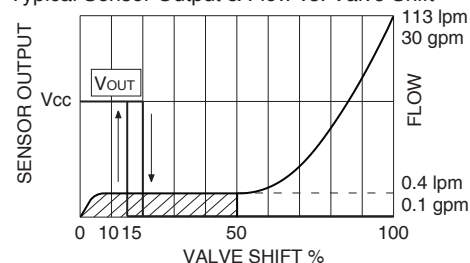
with Sensor:



PERFORMANCE (Cartridge Only)

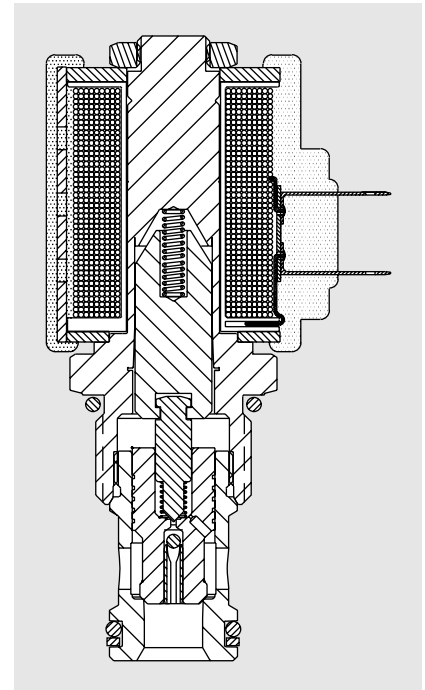
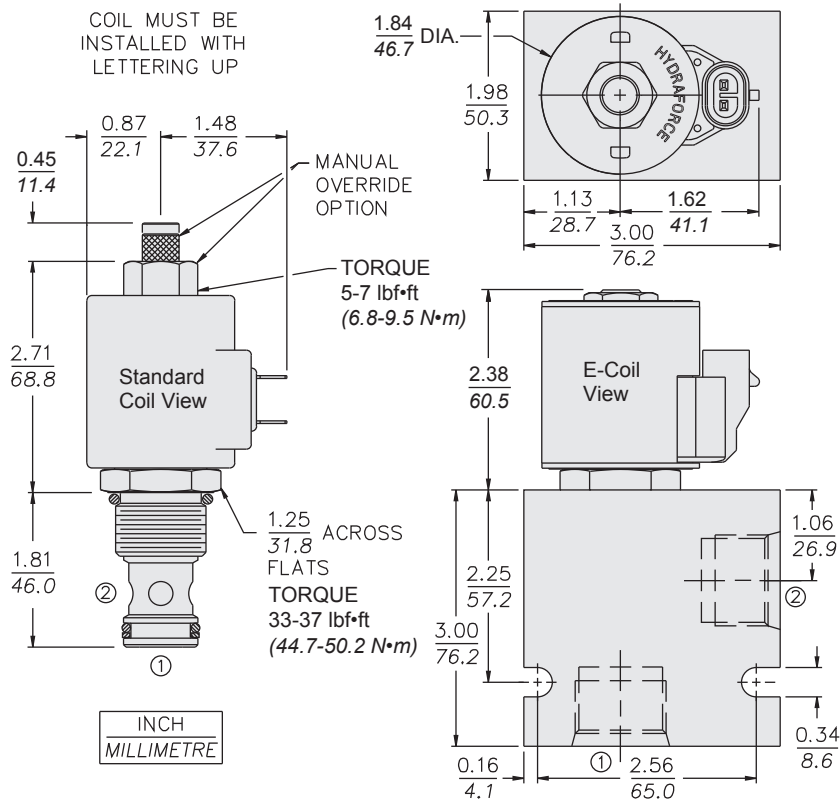


Typical Sensor Output & Flow vs. Valve Shift



Hatched Area: Overlapping Stroke, Leakage Flow

DIMENSIONS



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

MATERIALS

Cartridge: Weight: 0.25 kg (0.55 lb) Weight with sensor option: 0.58 kg (1.28 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.57 kg (1.25 lb) 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 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

SV12-(P)22(A)

<u>Position Indicator</u>		<u>Voltage Std. Coil</u>		<u>Sensor Type</u>	
None	(Blank)	0	Less Coil**	(Blank)	None
Switch	P	10	10 Vdc†	3	Dual Output, N.C./N.O.
Restricted Flow	A	12	12 Vdc	<u>Sensor/Connector</u>	
with sensor, valve is rated 3000 psi (207 bar)		24	24 Vdc	(Blank)	None
<u>Option</u>		36	36 Vdc	N	Neutral Sense/DT04-4P
None	(Blank)	48	48 Vdc	M	Neutral Sense/M12-4P
Manual Override	M	24	24 Vac	<u>Mating Connectors:</u>	
Manual Override	Y	115	115 Vac	DT06-4S: Part No. 4001953	
Manual Override	J	230	230 Vac	M12-4S: available at www.turck.com or www.binder-usa.com	
For Manual Override options see page 1.001.1		**Includes Coil Nut			
<u>Porting</u>		† DS, DW or DL terminations only			
Cartridge Only	0	E-Coils: 10,12,20 or 24 Vdc only.			
SAE 12	12T				
		<u>Seals</u>			
		N Buna N (Std.)			
		V Fluorocarbon			
				<u>Coil Termination</u>	
				Deutsch DT04-2P	
				Metri-Pack® 150	
				Dual Lead Wires	
				Amp Jr. Timer	
				DIN 43650	
				Dual Spades	
				<u>E-Coil</u>	
				ER (IP69K)	
				EY (IP69K)	
				EL (IP69K)	
				EJ (IP67)	
				EG (IP65)	
				—	
				<u>D-Coil</u>	
				DR (IP65)	
				DY (IP65)	
				DL (IP65)	
				—	
				DG (IP65)	
				DS (IP65)	
				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 & 3.400.1	

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 & 3.400.1