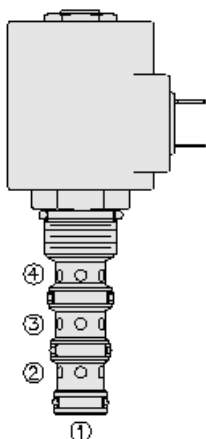




Overview



Description

A solenoid-operated, 4 port, 2 position, direct-acting, spool-type, screw-in hydraulic cartridge valve. When de-energized,.

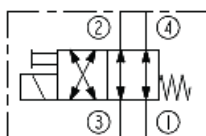
Operation

The SV10-40X allows flow from port 3 to port 2, as well as from port 4 to port 1. When energized, the spool shifts to open port 3 to port 4 and port 2 to port 1.

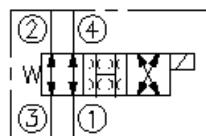
Features

- Continuous-duty rated coil.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- All ports may be fully pressurized.
- Unitized, molded coil design.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Industry-common cavity.

Symbol



TRANSITION:



Ratings

Pressure Ratings

Pressure rating	207 bar (3000 psi)
Proof pressure	276 bar (4000 psi)
Burst pressure	621 bar (9000 psi)

Flow Ratings

Flow rating	23 lpm (6 gpm)
Maximum internal leakage	82 ml/min (5 in ³ /min) - Note: Tested at port 3 (de-energized) out port 1 with ports 2 and 4 blocked 207 bar (3000 psi)

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Response	36 ms - Note: Energized (first indication of change of state with 100% voltage applied to the coil with flow at 23 lpm (6 gpm))
	20 ms - Note: De-energized (first indication of change of state with 100% voltage applied to the coil with flow at 23 lpm (6 gpm))
Corrosion protection	960 hr salt spray per ASTM b117 (gsv10-40x)



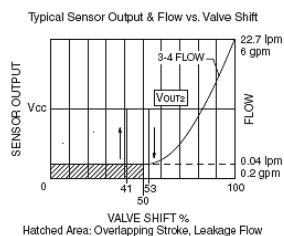
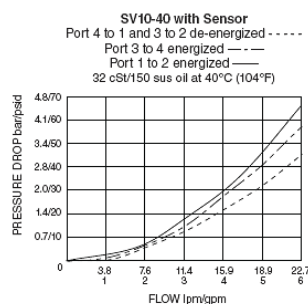
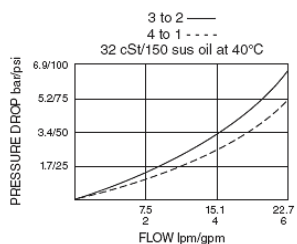
Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

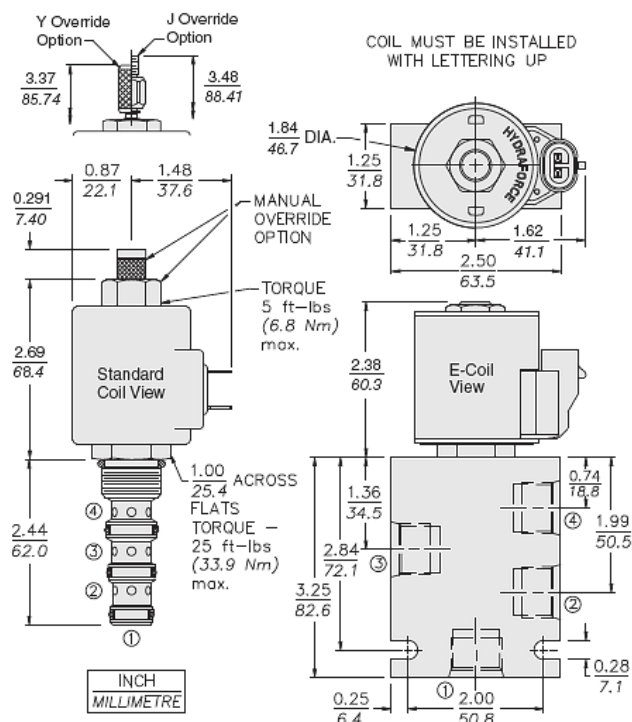
Unit weight	0.18 kg (0.40 lb)	- Note: (sv10-40)
Internal wetted surface area	163 cm ² (25.3 in ²)	- Note: (sv10-40)

Performance





Dimensions



Installation Specifications

Cavity	VC10-4
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Maximum allowable torque	54.2 N-m (40 ft-lb)
Coil nut torque	6.8 to 9.5 N-m (5 to 7 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK10-4X-MMM	- Note: X = seal option
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Order Code

SV10-(P)40 -		Sensor Option: See page 3.010.1	
Position Indicator		Voltage	
None (Blank)		Std. Coil	
Switch P		0	Less Coil**
with sensor, valve is rated 3000 psi (207 bar)		10	10 VDC†
		12	12 VDC
		24	24 VDC
		36	36 VDC
		48	48 VDC
		24	24 VAC
		115	115 VAC
		230	230 VAC
		**Includes Coil Nut	
		† DS, DW or DL terminations only	
		E-Coils: 10, 12, 20 or 24 VDC only.	
		Seals	
		N	Buna N (Std.)
		V	Fluorocarbon
Porting			
Cartridge Only	0		
SAE 6	6T		
SAE 8	8T		
1/4 in. BSP*	2B		
3/8 in. BSP*	3B		
1/2 in. BSP*	4B		
*BSP Body; U.K. Mfr. Only			
Option			
None (Blank)			
Manual Override	M		
Manual Override	Y		
Manual Override	J		
For Manual Override options see page 1.001.1			
		Sensor Type	
		(Blank)	None
		3	Dual Output, N.C./N.O.
		Sensor/Connector	
		(Blank)	None
		N	Neutral Sense/DT04-4P
		M	Neutral Sense/M12-4P
		Mating Connectors:	
		DT04-4S: Part No. 4001953	
		M12-4S: available at www.turck.com or www.binder-usa.com	
		Coil Termination	
		Deutsch DT04-2P	
		Metri-Pack® 150	
		Dual Lead Wires	
		Amp Jr. Timer	
		DIN 43650	
		Dual Spades	
		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	
		E-Coil	
		ER (IP69K)	
		EY (IP69K)	
		EL (IP69K)	
		EJ (IP67)	
		EG (IP65)	
		D-Coil	
		DR (IP65)	
		DY (IP65)	
		DL (IP65)	
		—	
		DG (IP65)	
		DS (IP65)	

Model Options

SV10-A40E-H-J-L-M

A Position Sensor Option

CODE	DESCRIPTION
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40	Standard
P40	Position Indicator Switch



E Manual Override

CODE	DESCRIPTION
BLANK	NONE
J	Momentary Pull Override, #10-32 threads
M	Two Position Override, Red Knurled Knob
Y	Momentary Pull Override, Red Knurled Knob

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

L Coil

CODE	DESCRIPTION
0	No Coil
10DG	10 VDC, D-Coil, DIN 43650
10DL	10 VDC, D-Coil, Dual Lead Wires
10DR/D	10 VDC, D-Coil, Deutsch with Diode
10DS	10 VDC, D-Coil, Dual Spade
10EL	10 VDC, E-Coil, Dual Lead Wires
10ER	10 VDC, E-Coil, Deutsch
10ER/Z	10 VDC, E-Coil, Deutsch with Zener Diode
12DG	12 VDC, D-Coil, DIN 43650
12DL	12 VDC, D-Coil, Dual Lead Wires, 18 inches long
12DL/36	12 VDC, D-Coil, Dual Lead Wires, 36 inches long
12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
12DL/W/D	12 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode
12DR	12 VDC, D-Coil, Deutsch
12DR/D	12 VDC, D-Coil, Deutsch with Diode
12DR/Z	12 VDC, D-Coil, Deutsch with Zener Diode
12DS	12 VDC, D-Coil, Dual Spade
12EG	12 VDC, E-Coil, DIN 43650
12EJ	12 VDC, E-Coil, AMP Jr.
12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long
12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
12EL/W/Z	12 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode



CODE	DESCRIPTION
12EL/Z	12 VDC, E-Coil, Dual Lead Wires with Zener Diode
12ER	12 VDC, E-Coil, Deutsch
12ER/Z	12 VDC, E-Coil, Deutsch with Zener Diode
12EY	12 VDC, E-Coil, Metri-Pack 150
12EY/Z	12 VDC, E-Coil, Metri-Pack 150 with Zener Diode
20DR/D	20 VDC, D-Coil, Deutsch with Diode
20DS	20 VDC, D-Coil, Dual Spade
20ER	20 VDC, E-Coil, Deutsch
24AG	24 VDC, D-Coil, DIN 43650
24AP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
24DG	24 VDC, D-Coil, DIN 43650
24DL	24 VDC, D-Coil, Dual Lead Wires
24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
24DL/W/D	24 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode
24DP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
24DR	24 VDC, D-Coil, Deutsch
24DR/D	24 VDC, D-Coil, Deutsch with Diode
24DS	24 VDC, D-Coil, Dual Spade
24EG	24 VDC, E-Coil, DIN 43650
24EJ	24 VDC, E-Coil, AMP Jr.
24EL	24 VDC, E-Coil, Dual Lead Wires, 18 inches long
24EL/36	24 VDC, E-Coil, Dual Lead Wires, 36 inches long
24EL/W/Z	24 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode
24ER	24 VDC, E-Coil, Deutsch
24ER/Z	24 VDC, E-Coil, Deutsch with Zener Diode
24EY	24 VDC, E-Coil, Metri-Pack 150
24EY/Z	24 VDC, E-Coil, Metri-Pack 150 with Zener Diode
36DS	36 VDC, D-Coil, Dual Spade
115AG	115 VAC, D-Coil, DIN 43650
115AP	115 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires
230AG	230 VAC, D-Coil, DIN 43650
230AP	230 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires

M Position Sensor Termination

CODE	DESCRIPTION
BLANK	No Position Sensor
M3	Neutral Sense, M12-4P, Dual Output NC/NO
N3	Neutral Sense, DT04-4P, Dual Output NC/NO