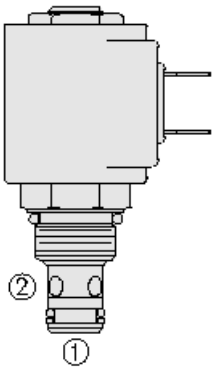
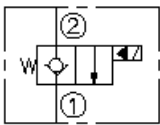




Overview



Symbol



Description

A solenoid-operated, 2-way, normally closed, poppet-type, screw in hydraulic cartridge valve, with standard (sv08-20) and manual override (mo) options. This valve is intended as a blocking or load holding device for low flow circuits having pull-only manual override requirements for handles or cable linkage.

Operation

When de-energized, the sv08-20xx acts as a check valve, allowing flow from port 1 to port 2, while blocking flow from port 2 to port 1. When energized, the valves poppet lifts to open the port 2 to port 1 flow path, while flow from port 1 to port 2 is severely restricted.

Features

- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Manual override option.
- Industry common cavity.
- Compact size.

Ratings

Pressure Ratings

Pressure rating	207 bar (3000 psi)	
Proof pressure	241 bar (3500 psi)	- Note: SV08-20
	234.5 bar (3400 psi)	- Note: Manual override
Burst pressure	620 bar (9000 psi)	- Note: SV08-20
	862 bar (12500 psi)	- Note: Manual override

Flow Ratings

Flow rating	- Note: See performance graph	
Maximum internal leakage	3 drops/min	- Note: SV08-20/M at 207 bar (3000 psi)
	5 drops/min	- Note: SV08-20 J/Y at 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 and urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117	- Note: (GSV08-20XX)
----------------------	---------------------------------	-----------------------------

Operating Parameters

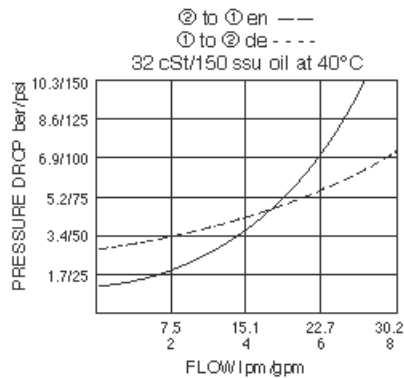
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties	
Fluid viscosity range	7.4 to 420 cSt	
Maximum operating contamination level	20/18/14 per ISO 4406	

Properties

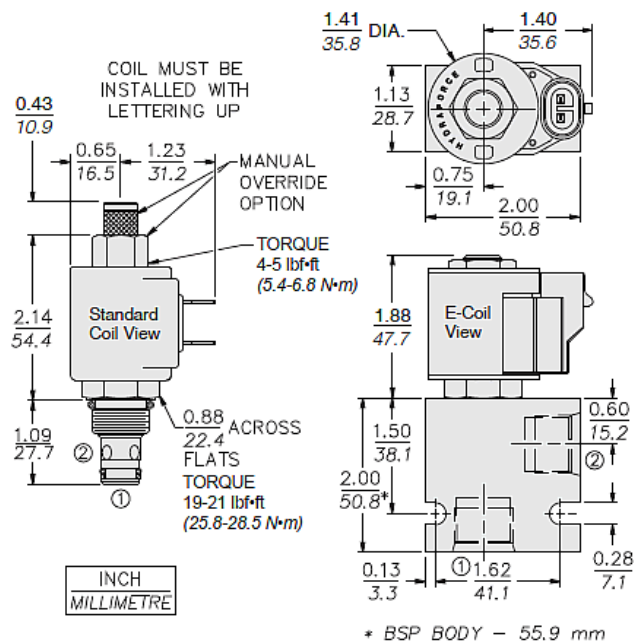
Unit weight	0.10 kg (0.22 lb)	- Note: SV08-20
	0.15 kg (0.33 lb)	- Note: SV08-20J/Y/M
Internal wetted surface area	83 cm ² (12.8 in ²)	- Note: (SV08-20)
	86.1 cm ² (13.3 in ²)	- Note: (SV08-20J/Y/M)



Performance



Dimensions



Installation Specifications

Cavity	VC08-2
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Maximum allowable torque	54 N-m (40 ft-lb) - Note: In aluminum
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK08-2X-T	- Note: = N, V and P seal option
----------	-----------	---

Order Code



SV08-20			
Option		Voltage Std. Coil	Termination (VDC) Std. Coil
None (Blank)		0 Less Coil**	DS Dual Spades
150µ Screen	S	10 10 VDC†	DG DIN 43650
Manual Override	M	12 12 VDC	DL Leadwires (2)
		24 24 VDC	DL/W Leads w/Weatherpak® Connectors
Porting		36 36 VDC	DR Deutsch DT04-2P
Cartridge Only	0	48 48 VDC	
SAE 8	8T	24 24 VAC	
3/8 in. BSP*	3B	115 115 VAC	Termination (VAC) Std. Coil
*BSP Body; U.K. Mfr. Only		230 230 VAC	AG DIN 43650
			AP 1/2 in. Conduit
			Termination (VDC) E-Coil
Seals		E-Coil	ER Deutsch DT04-2P (IP69K Rated)
Buna N (Std.)	N	10 10 VDC	EY Metri-Pack® 150 (IP69K Rated)
Fluorocarbon	V	12 12 VDC	
		20 20 VDC	
		24 24 VDC	

**Includes Std. Coil Nut
† DS, DW or DL terminations only.
Coils with internal diode are available. Consult factory.

Model Options

SV08-20EG-H-J-L

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

G Screen

CODE	DESCRIPTION
BLANK	NONE
S	100 Mesh Screen

H Line Body

CODE	DESCRIPTION
0	No Body
4T	Aluminum SAE 4
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

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

L Coil



CODE	DESCRIPTION
0	No Coil
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, 18 inches long
10EL/36	10 VDC, E-Coil, Dual Lead Wires, 36 inches long
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
12EG/Z	12 VDC, E-Coil, DIN 43650 with Zener Diode
12EJ	12 VDC, E-Coil, AMP Jr.
12EJ/Z	12 VDC, E-Coil, AMP Jr. with Zener Diode
12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long
12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
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
20DG	20 VDC, D-Coil, DIN 43650
20DS	20 VDC, D-Coil, Dual Spade
20ER	20 VDC, E-Coil, Deutsch
20ER/Z	20 VDC, E-Coil, Deutsch with Zener Diode
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, 18 inches long
24DL/36	24 VDC, D-Coil, Dual Lead Wires, 36 inches long
24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
24DR	24 VDC, D-Coil, Deutsch
24DR/D	24 VDC, D-Coil, Deutsch with Diode
24DR/Z	24 VDC, D-Coil, Deutsch with Zener Diode
24DS	24 VDC, D-Coil, Dual Spade
24EG	24 VDC, E-Coil, DIN 43650



CODE	DESCRIPTION
24EG/Z	24 VDC, E-Coil, DIN 43650 with Zener Diode
24EJ	24 VDC, E-Coil, AMP Jr.
24EL/D	24 VDC, E-Coil, Dual Lead Wires with 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
36DG	36 VDC, D-Coil, DIN 43650
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