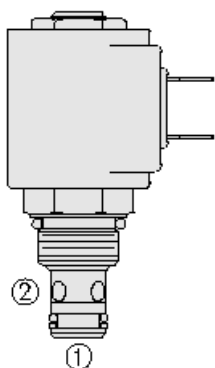
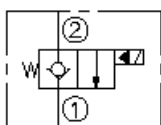




Overview



Symbol



Description

A solenoid-operated, 2 way, normally closed, piloted poppet-type, screw-in hydraulic cartridge valve and intended to act as a blocking or load-holding device for low flow circuits.

Operation

When de-energized, the sf08-20x 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 cartridge's poppet lifts to open the port 2 to port 1 flow path. In this mode, 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.
- Optional waterproof E-Coils rated up to IP69K.
- Corrosion-resistant plating to 960 hr. salt spray per ASTM B117.
- Industry common cavity.
- Compact size.

Ratings

Pressure Ratings

Pressure rating	350 bar (5000 psi)
Proof pressure	483 bar (7000 psi)
Burst pressure	965 bar (14000 psi)

Flow Ratings

Flow rating	See performance graph
Maximum internal leakage	3 drops/min - Note: Max at 350 bar (5000 psi)

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: Buna N
	-26 to 204 °C (-15 to 400 °F)	- Note: Fluorocarbon
	-54 to 107 °C (-65 to 225 °F)	- Note: Polyurethane
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties.
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 PER ISO 4406

Properties

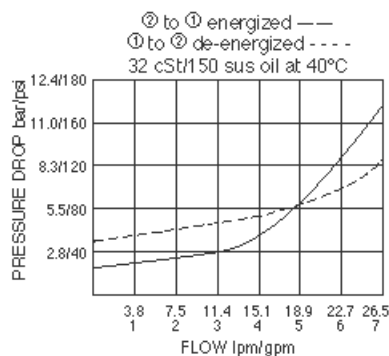
Cartridge weight	0.1 kg (0.22 lb)
Internal wetted surface area	80 cm ² (12.47 in ²)

Environmental

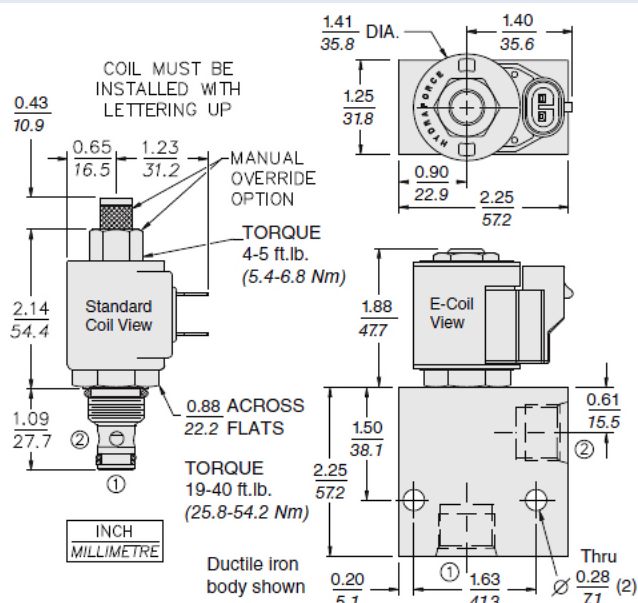
Corrosion protection	960 hr salt spray per ASTM B117
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Performance



Dimensions



Installation Specifications

Cavity	VC08-2
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Maximum allowable torque	54.2 N-m (40 ft-lb)
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)
Orientation restriction	None

Order Code

SF08-20		Option		Voltage Std. Coil		Termination (VDC) Std. Coil	
		None (Blank)		0	Less Coil**	DS	Dual Spades
		Manual Override	M	10	10 VDC†	DG	DIN 43650
		Porting		12	12 VDC	DL	Leadwires (2)
		Cartridge Only	0	24	24 VDC	DL/W	Leads w/Weatherpak® Connectors
		Aluminum		36	36 VDC	DR	Deutsch DT04-2P
		SAE 8	8T	48	48 VDC	Termination (VAC) Std. Coil	
		3/8 in. BSP*	3B	24	24 VAC	AG	DIN 43650
		Ductile Iron		115	115 VAC	AP	1/2 in. Conduit
		SAE 6	6TD	230	230 VAC	Termination (VDC) E-Coil	
		3/8 in. BSP*	3BD			ER	Deutsch DT04-2P (IP69K Rated)
		*BSP Body; U.K. Mfr. Only				EY	Metri-Pack® 150 (IP69K Rated)
		Seals		E-Coil		Coils with internal diode are available. Consult factory.	
		Polyurethane (Std.)	P	10	10 VDC		
				12	12 VDC		
				20	20 VDC		
				24	24 VDC		

Polyurethane seals recommended for 345 bar (5000 psi) operation. Contact factory for additional seal options.

**Includes Std. Coil Nut

†DS, DW or DL terminations only

Model Options



SF08-20EG-H-J-L

E Manual Override

CODE	DESCRIPTION
BLANK	NONE
M	Two Position 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

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



CODE	DESCRIPTION
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
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