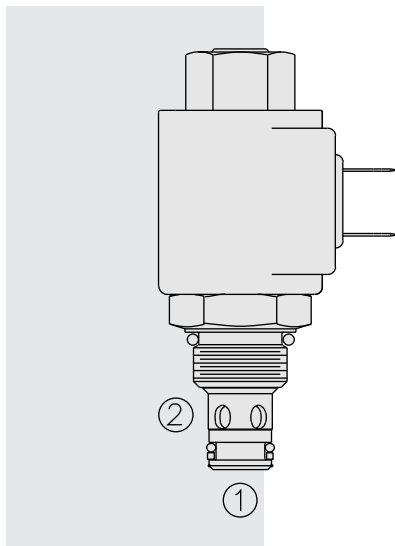


## SF08-21 Poppet, 2-Way, N.O., High Pressure



### DESCRIPTION

A solenoid-operated, 2-way, piloted, poppet-type, normally open, screw-in, hydraulic cartridge valve designed for low leakage in higher pressure load-holding applications.

### OPERATION

When de-energized, the **SF08-21** allows flow from ② to ①. Flow from ① to ② is severely restricted in this mode. If the ② to ① path is required see model SF08-23, page 1.051.1.

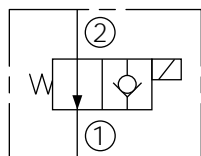
When energized, the valve's poppet closes on its seat, blocking flow from ② to ①. In this mode the cartridge will allow ① to ② flow after overcoming the solenoid force (requires 3.4 to 10.3 bar / 50 to 150 psi).

### FEATURES

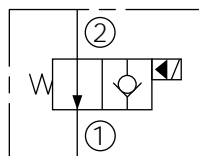
- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Optional waterproof E-Coils rated up to IP69K.
- Industry common cavity.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

### SYMBOLS

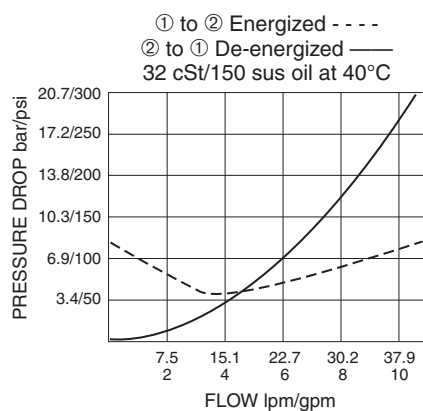
#### USASI:



#### ISO:



### PERFORMANCE (Cartridge Only)



### RATINGS

**Operating Pressure:** 345 bar (5000 psi)

**Flow:** See Performance Chart

**Internal Leakage:** 0.15 cc/minute (3 drops/minute) max. at 345 bar (5000 psi)

**Temperature:** -40 to 120°C with standard polyurethane 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: 39 msec.; De-energized: 35 msec.

**Initial Coil Current Draw at 20°C:** Standard Coil: 1.2 amps at 12 VDC;  
 0.13 amps at 115 VAC (full wave rectified).

E-Coil: 1.4 amps at 12 VDC; 0.7 amps at 24 VDC

**Minimum Pull-in Voltage:** 85% of nominal at 345 bar (5000 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:** VC08-2; See page 9.108.1

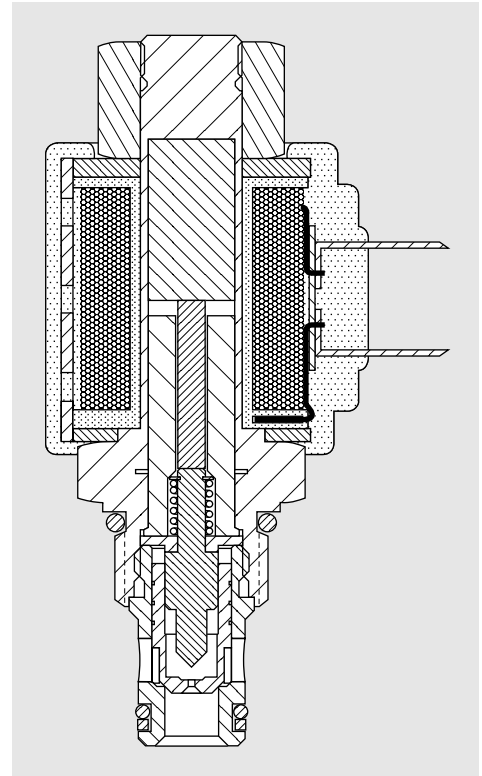
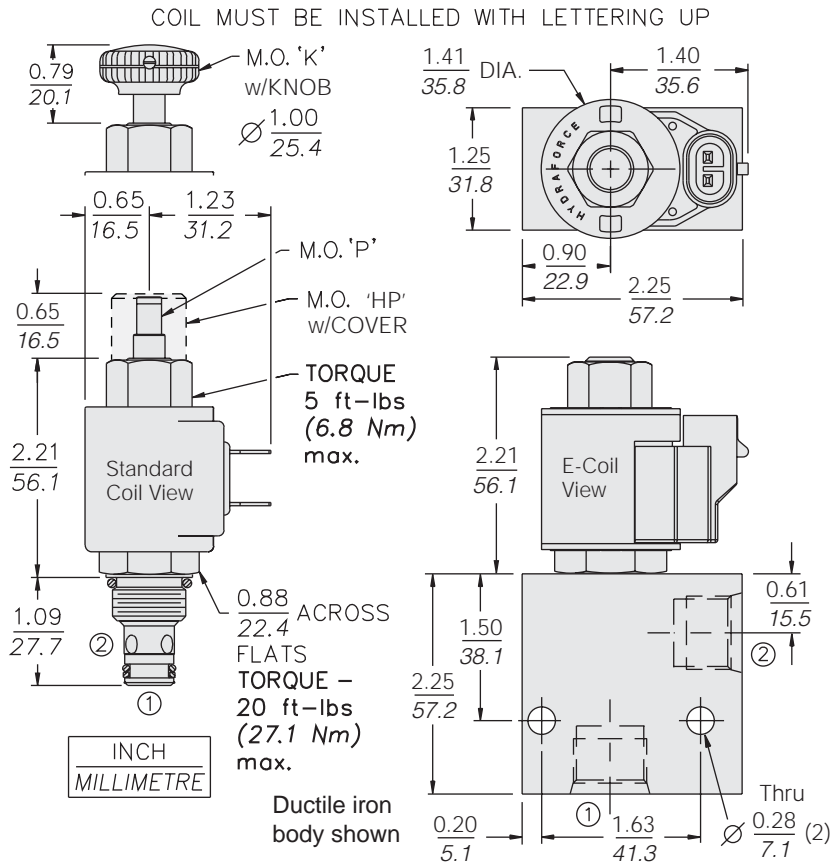
**Cavity Tool:** CT08-2XX; See page 8.600.1

**Seal Kit:** SK08-2X-T; See page 8.650.1

**Coil Nut:** Part No. 7004410;

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

**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.09 kg. (0.20 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Polyurethane cast O-rings and Fluorocarbon back-up standard.

**Ported Body:** Weight: 0.54 kg. (1.2 lbs.), Ductile iron standard; rated to 345 bar (5000 psi); See page 8.008.1.

**Standard Coil:** Weight: 0.11 kg. (0.25 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnetwire; See page 3.200.1.

**E-Coil:** Weight: 0.14 kg. (0.3 lbs.); Fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors; **Note: See page 3.400.1 for all E-Coil retrofit applications.**

**TO ORDER**

**SF08-21**

<b>Option</b>		<b>Voltage Std. Coil</b>	<b>Termination (VDC) Std. Coil</b>
None (Blank)		0 Less Coil**	DS Dual Spades
Manual Override	P	10 10 VDC†	DG DIN 43650
Manual Override with Cover	HP	12 12 VDC	DL Leadwires (2)
Manual Override with Knob	K	24 24 VDC	DL/W Leads w/Weatherpak® Connectors
		36 36 VDC	DR Deutsch DT04-2P
		48 48 VDC	<b>Termination (VAC) Std. Coil</b>
		24 24 VAC	AG DIN 43650
<b>Porting</b>		115 115 VAC	AP 1/2 in. Conduit
Cartridge Only	0	230 230 VAC	<b>Termination (VDC) E-Coil</b>
SAE 6	6TD		ER Deutsch DT04-2P (IP69K Rated)
SAE 8	8TD		EY Metri-Pack® 150 (IP69K Rated)
1/4 in. BSP*	2BD		
3/8 in. BSP*	3BD		
*BSP Body; U.K. Mfr. Only			
<b>Seals</b>		<b>E-Coil</b>	
Polyurethane (Std.)	P	10 10 VDC	
		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.