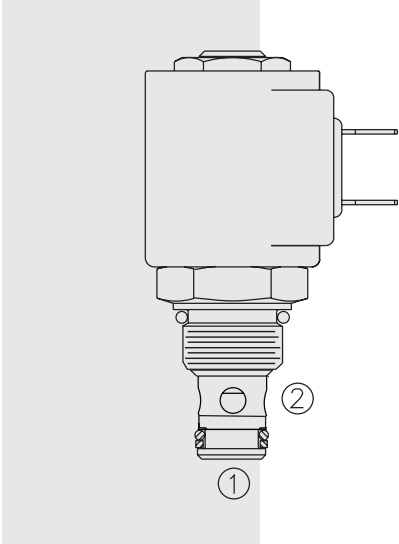


SF08-21 Poppet, 2-Way, N.O., High Pressure



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.
- Corrosion-resistant plating.
- 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.
- Corrosion-resistant plating.
- Industry common cavity.
- Compact size.

RATINGS

Operating Pressure: 345 bar (5000 psi)

Proof Pressure: 359 (5200 psi)

Burst Pressure: 724 bar (10,500 psi)

Flow: See Performance Chart

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

Temperature: -54 to 107 °C (-56 to 225 °F) 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

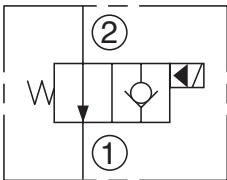
Cavity Tool: CT08-2XX; See page 8.600.1

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

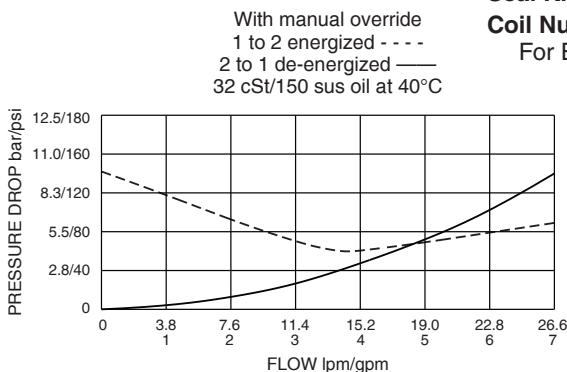
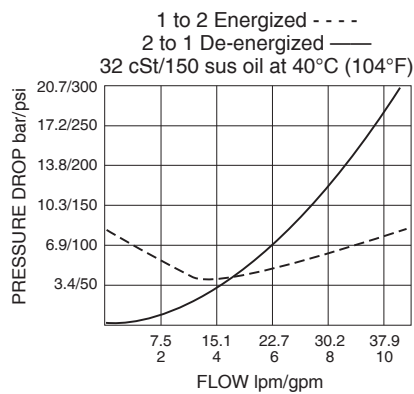
Coil Nut: Part No. 7004410;

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

ISO SYMBOL

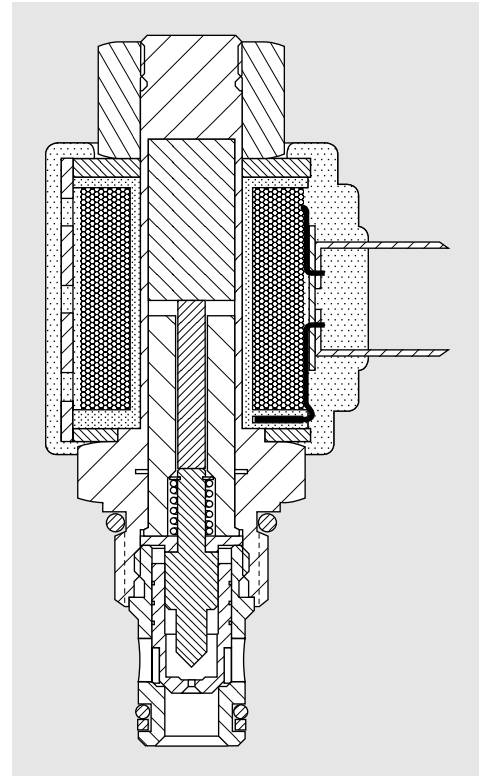
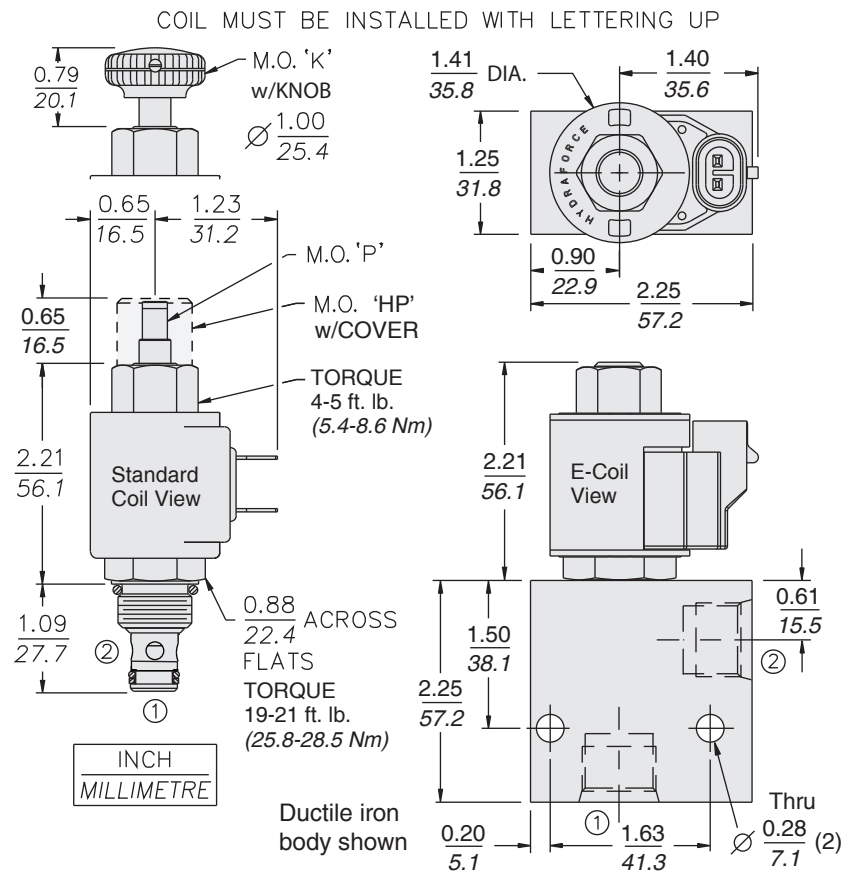


PERFORMANCE (Cartridge Only)



SF08-21

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.09 kg (0.20 lb); Steel with hardened work surfaces. Corrosion-resistant zinc-nickel plated exposed surfaces; Polyurethane cast O-rings and Fluorocarbon back-up standard.

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

Standard Coil: Weight: 0.11 kg (0.25 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire; See page 3.200.1.

E-Coil: Weight: 0.14 kg (0.3 lb); 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

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

Coils with internal diode are available. Consult factory.