**SF08-20  Poppet, 2-Way, N.C., High Pressure**

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

**OPERATION**
When de-energized, the SF08-20 acts as a check valve, allowing flow from 1 to 2, while blocking flow from 2 to 1.

When energized, the cartridge’s poppet lifts to open the 2 to 1 flow path. In this mode, flow from 1 to 2 is severely restricted. If this path is required, see model SF08-22, page 1.042.1.

**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.
- Industry common cavity.
- Compact size.

**RATINGS**
- **Operating Pressure:** 345 bar (5000 psi)
- **Proof Pressure:** 483 bar (7000 psi)
- **Burst Pressure:** 965 bar (14000 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 (-65 to 225°F) with standard polyurethane seals
- **Coil Duty Rating:** Continuous from 85% to 115% of nominal voltage
- **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:** SK08-2P-T; See page 8.650.1
- **Coil Nut:** Part No. 7004400; For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.
DIMENSIONS

MATERIALS
Cartridge: Weight: 0.01 kg (0.22 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Polyurethane seals 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 magnetwire; 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

Option
None (Blank) Manual Override M
Porting
Cartridge Only 0
Aluminum SAE 8 8T
3/8 in. BSP* 3B
Ductile Iron SAE 6 6TD
3/8 in. BSP* 3BD
*BSP Body; U.K. Mfr. Only

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

Voltage
Std. Coil
0 Less Coil**
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 Std. Coil Nut
† DS, DW or DL terminations only

Coils with internal diode are available. Consult factory.

Termination (VDC)
Std. Coil
DS Dual Spades
DG DIN 43650
DL Leadwires (2)
DL/W Leads w/Weatherpack Connectors
DR Deutsch DT04-2P
EY Metri-Pack® 150

Termination (VAC)
Std. Coil
AG DIN 43650
AP 1/2 in. Conduit
ER Deutsch DT04-2P (IP69K Rated)