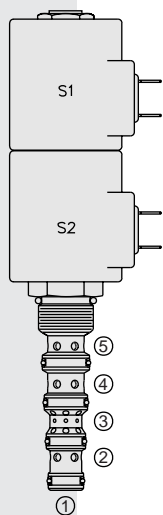


# ELECTRO-PROPORTIONAL VALVES—DIRECTIONAL CONTROL

## SP10-58C Spool, 5-Way, 3-Position . . .



### DESCRIPTION

A solenoid-operated, 5-way, 3-position, proportional, screw-in hydraulic cartridge valve with integral brake release port.

### OPERATION

When de-energized, the **SP10-58C** allows flow between ③ and ①. When coil #1 is energized, flow is allowed from ⑤ to ②, and from ④ to ③. When coil #2 is energized, flow is allowed from ⑤ to ④, and from ② to ③. Load sense is connected to port ⑤ when the spool is in shifted positions.

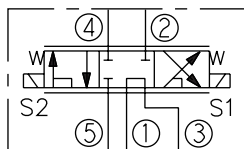
**Note:** If low voltage is expected on the machine, 12 or 24 volt systems will require the use of 10 volt or 20 volt coils respectively. See “SP Valves and Coil Operating Parameters,” page 2.002.1.

### FEATURES

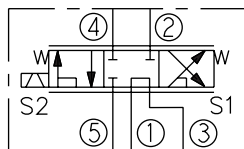
- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations
- Cartridges are voltage interchangeable.
- Optional manual override.
- Optional waterproof E-Coils rated up to IP69K.

### SYMBOLS

#### USASI:



#### ISO:



### RATINGS

**Operating Pressure:** 250 bar (3625 psi) with standard Buna N seals

**Flow:** 22.7 lpm (6 gpm) max. See performance chart

**Internal Leakage:** 246 cc/minute (15 cu. in./minute) max. at 207 bar (3000 psi)

**Temperature:** -40 to 120°C with standard Buna seals

**Coil Duty Rating:** Continuous from 85% to 115% of nominal voltage

**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:** VC10-5; See page 9.110.1; **Cavity Tool:** CT10-5XX; See page 8.600.1

**Seal Kit:** SK10-5X-MMMM; See page 8.650.1

**Coil Nut:** Part No. 7004400; **Coil Spacer** for E-coils: Part No. 4539700

#### Recommended Electronic Controllers:

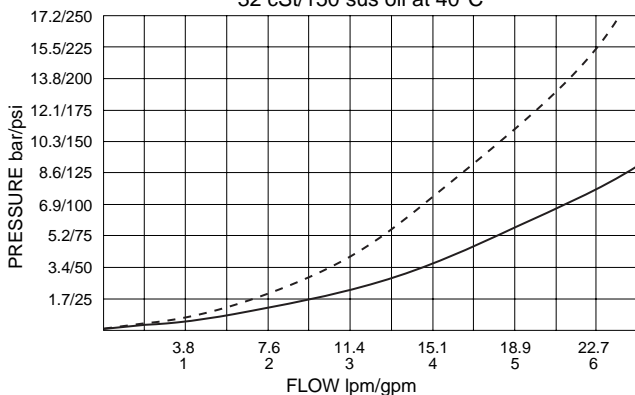
See page 2.001.1 or our Electronics catalog.

### PERFORMANCE (Cartridge Only)

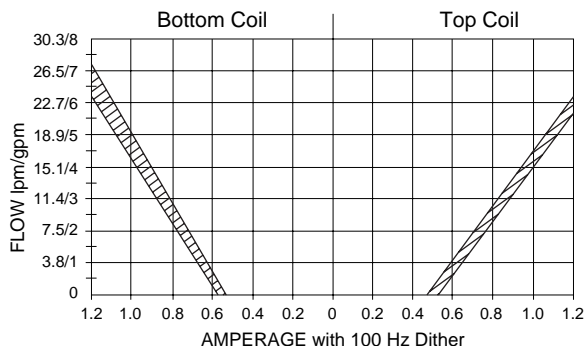
⑤ to ② or ⑤ to ④ at 100% current, S1 or S2 energized: - - - - -

④ to ③ or ② to ③ at 100% current, S1 or S2 energized: —————

32 cSt/150 sus oil at 40°C



Performance with 12 VDC Coils  
and 10.3 bar/150 psi inline compensator  
(for other voltages consult factory)

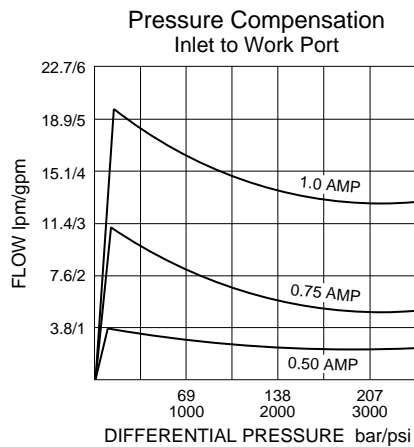


Performance information continued on following page.

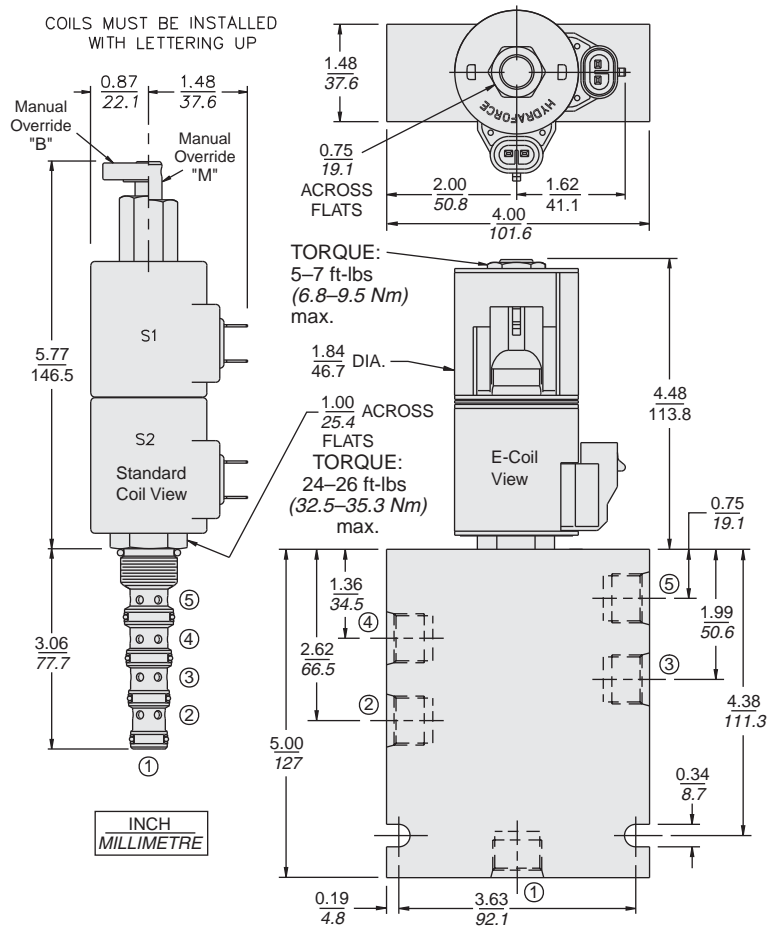
for Brake Release Applications

SP10-58C

**PERFORMANCE** (Continued)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.36 kg. (0.80 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

**Standard Ported Body:** Weight: 0.41 kg. (0.85 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ. See page 8.010.1.

**Standard Coil:** Weight each: 0.27 kg. (0.60 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnetwire. See page 3.200.1

**E-Coil:** Weight each: 0.41 kg. (0.9 lbs.); Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors.

See page 3.400.1 for all E-Coil retrofit applications.

**TO ORDER**

**SP10-58C**

**Option**  
None (Blank)  
Manual Override **B**  
Manual Override **M**  
For Manual Override options see page 1.001.1

**Porting**  
Cartridge Only **0**  
SAE 6 **6T**  
SAE 8 **8T**

**Seals**  
Buna N (Std.) **N**  
Fluorocarbon **V**  
Polyurethane **P**

**Voltage Std. Coil**  
**0** Less Coil\*\*  
**10** 10 VDC†  
**12** 12 VDC  
**20** 20 VDC  
**24** 24 VDC  
\*\*Includes Std. Coil Nut

**E-Coil**  
**10** 10 VDC  
**12** 12 VDC  
**20** 20 VDC  
**24** 24 VDC

**Termination (VDC) Std. Coil**  
**DS** Dual Spades  
**DG** DIN 43650  
**DL** Leadwires (2)  
**DLW** Leads w/Weatherpak® Connectors  
**DR** Deutsch DT04-2P  
**Termination (VDC) E-Coil**  
**ER** Deutsch DT04-2P (IP69K Rated)  
**EY** Metri-Pack® 150 (IP69K Rated)

Coils with internal diode are available. Consult factory.