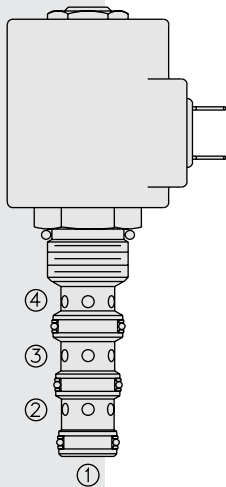


ELECTRO-PROPORTIONAL VALVES—DIRECTIONAL CONTROL

SP10-46R Spool, 4-Way, 2-Position



DESCRIPTION

A proportional, solenoid-operated, four-way, two-position, screw-in hydraulic cartridge valve.

OPERATION

When de-energized, the **SP10-46R** allows flow from ②, ① and ④, while blocking flow at ③. When energized, metered flow is allowed from ③ to ④, as well as metered return flow from ② to ①.

FEATURES

- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Good linearity and hysteresis.
- Industry common cavity.

RATINGS

Operating Pressure: 247 bar (3625 psi) with standard Buna N seals

Flow: 22.7 lpm (6 gpm) maximum; see performance chart

Internal Leakage: 328 ml/minute (20 cu. in./minute) max. at 207 bar (3000 psi)

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

Coil Duty Rating: Standard Coils and E-Coils: 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: VC10-4; See page 9.110.1

Cavity Tool: CT10-4XX; See page 8.600.1

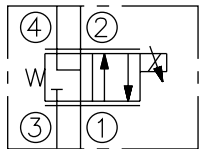
Seal Kit: SK10-4X-MMM; See page 8.650.1

Coil Nut: Part No. 7004400;

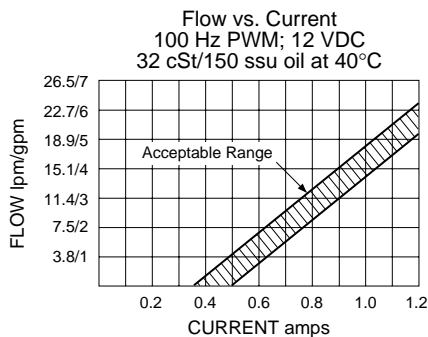
For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.

SYMBOLS

USAS/ISO:

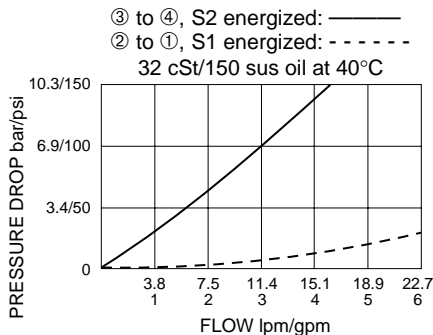


PERFORMANCE (Cartridge Only)

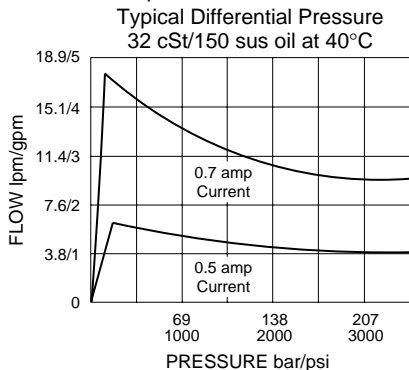


Recommended Electronic Controllers:

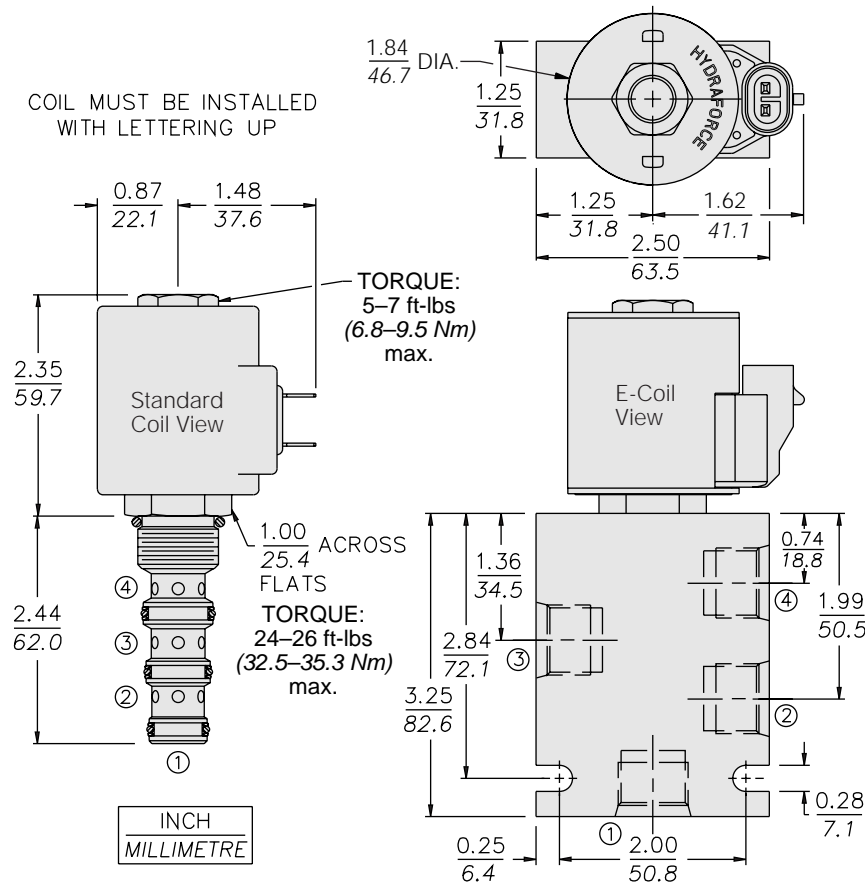
See page 2.001.1 or our Electronics catalog.



Pressure Compensation, Inlet to Work Port



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.20 kg. (0.45 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.36 kg. (0.80 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.

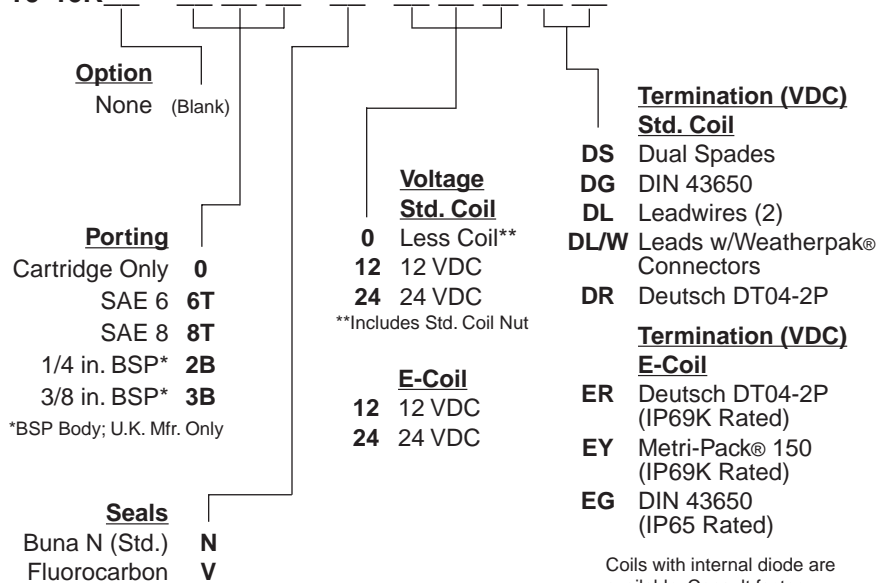
Standard Coil: Weight: 0.27 kg. (0.60 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnetwire. See page 3.200.1.

E-Coil: Weight: 0.41 kg. (0.9 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

SP10-46R



Coils with internal diode are available. Consult factory.