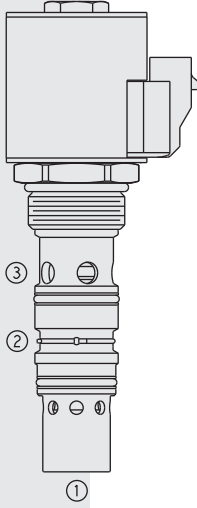


SPCL16-32 Poppet, 3-Port, Normally Closed

U.S. Patent
7,921,880



DESCRIPTION

A solenoid-operated, 3-port, normally-closed, proportional, poppet-type, screw-in hydraulic cartridge valve for low-leakage blocking and load-holding applications.

OPERATION

When the **SPCL16-32** is energized, the poppet lifts to allow flow from port 3 to ports 1 and 2. Flow at port 2 is typical for load sensing applications.

FEATURES

- Industry-common cavity.
- Continuous-duty rated coils.
- Reduce manifold space claim.
- Efficient wet-armature construction.
- Optional waterproof E-Coils rated up to IP69K.

RATINGS

Operating Pressure: Maximum: 250 bar (3625 psi); Minimum: 2.4 bar (35 psi)

Flow Rating: up to 152 lpm (40 gpm); see performance charts

Internal Leakage: Ports 1 and 3: 5 drops/minute max. at 250 bar (3625 psi)
Port 2: 15 drops/minute max. at 250 bar (3625 psi)

Operating Temperature: -40° to 100°C (-40° to 212° F) with standard Buna N seals;
-26° to 204°C (-15° to 400°F) with Fluorocarbon seals;
-54°C to 104°C (-65°F to 225°F) with Polyurethane seals

Valve Inductance: 173.3 mH at 1.2A (Max. Control Current)

Threshold Current: 0.40A to 0.60A

Hysteresis: Less than 10% of maximum flow at 1.2A (Max. Control Current)

Dither Frequency: 100 Hz recommended

Installation: No restrictions; See page 9.020.1; **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

Cavity: VC16-3SPCL; See page 9.116.1

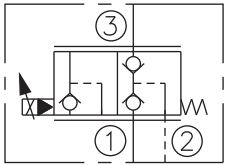
Cavity Tool: CT16-3SPCL; See page 8.600.1

Seal Kit: SK16-3X-MM; See page 8.650.1

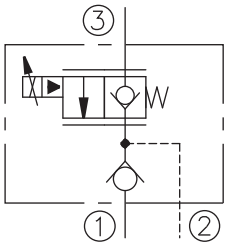
Coil Nut: Part No. 7004400

SYMBOL

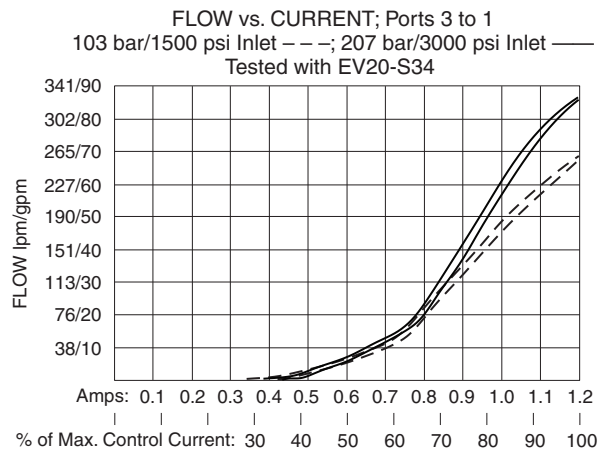
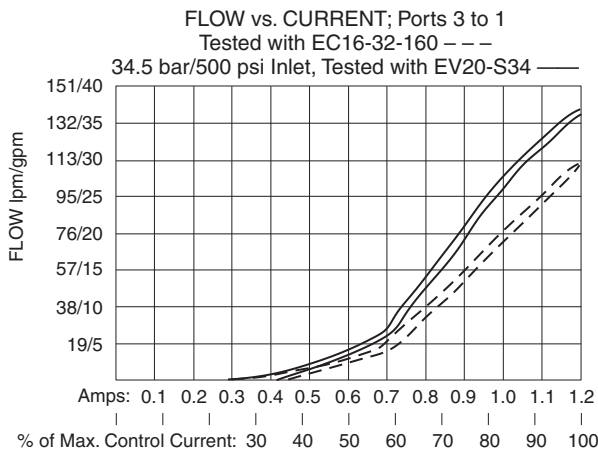
ISO:



Expanded:



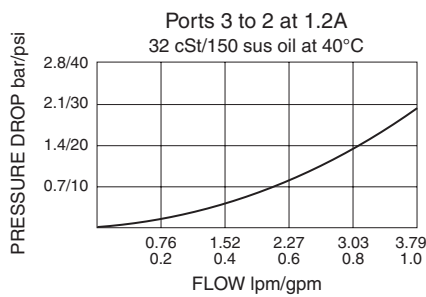
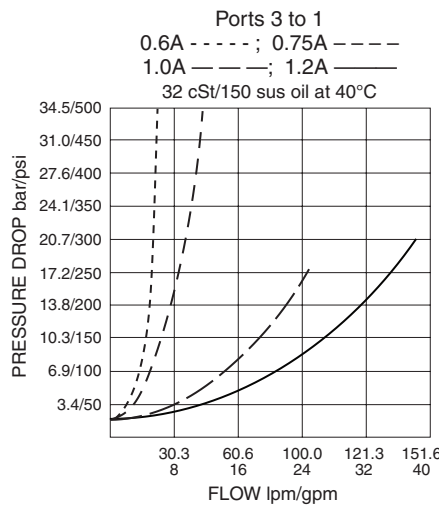
PERFORMANCE (Cartridge Only)



Performance info. continued on next page.

SPCL16-32

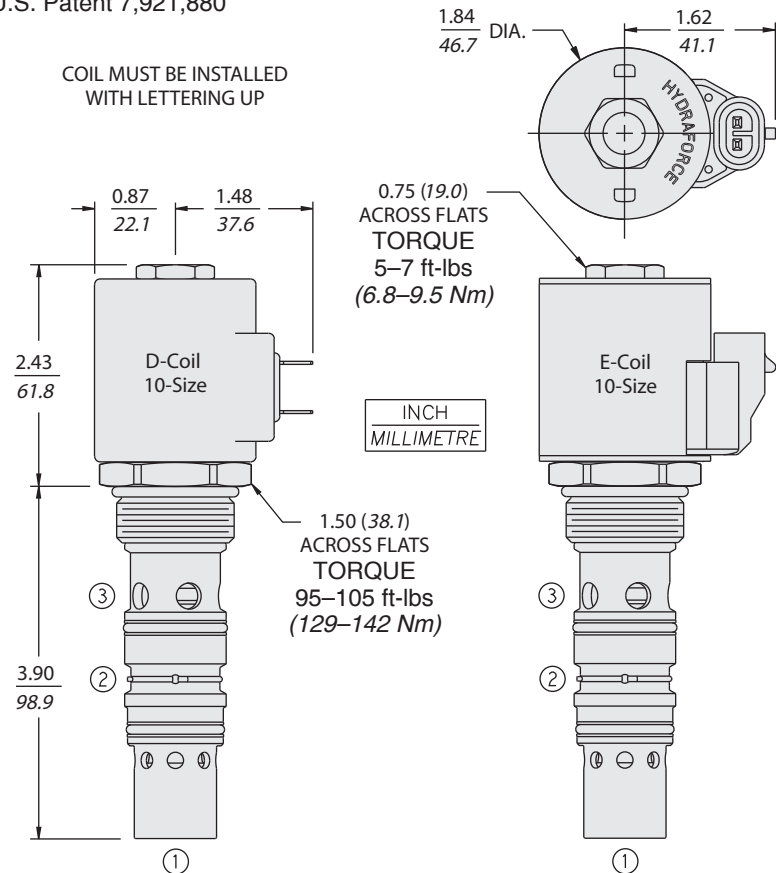
PERFORMANCE (Continued)



Recommended Electronic Controllers:
See page 2.001.1 or our Electronics catalog.

DIMENSIONS

U.S. Patent 7,921,880



MATERIALS

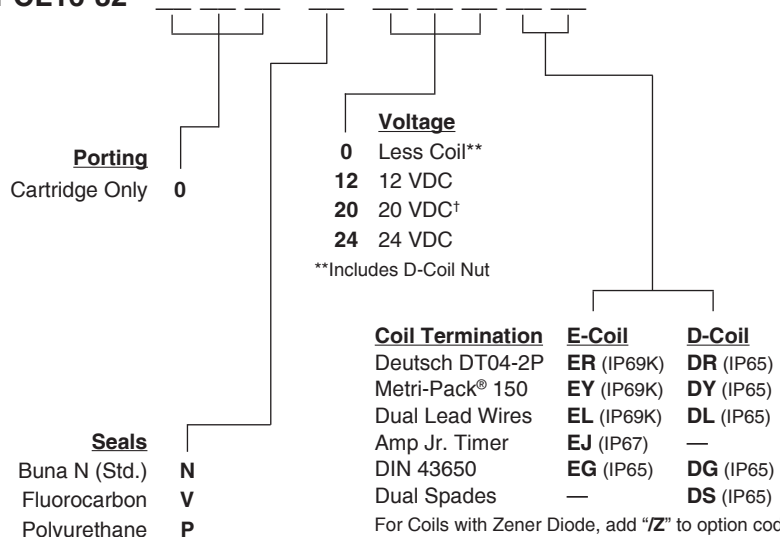
Cartridge: Weight: 0.49 kg. (1.09 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard D-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

SPCL16-32 -



For Coils with Zener Diode, add "Z" to option code.
For example: "ER/Z". Not available on all models.
See coil option info. on pages 3.200.1 & 3.400.1