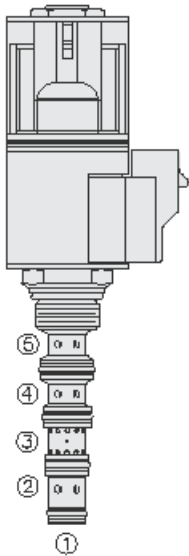




Overview



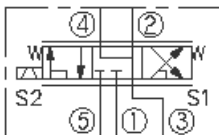
Description

This valve is a direct - acting 3 position, 5 port proportional directional control. With port 1 as a load sense port it is a screw-in cartridge type for use with general purpose hydraulic fluids

Features

- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Cartridges are voltage interchangeable.
- Industry-common cavity “Compact” size.

Symbol



Ratings

Pressure Ratings

| | | |
|-----------------|--------------------|-----------------------------------|
| Pressure rating | 241 bar (3500 psi) | - Note: SP08-57D |
| | 207 bar (3000 psi) | - Note: SP08-57DM |
| Proof pressure | 345 bar (5000 psi) | - Note: For SP08-57DM only |
| Burst pressure | 655 bar (9500 psi) | |

Flow Ratings

| | | |
|--------------------------|-------------------------|--------------------------------------|
| Flow rating | See coil heating graph | |
| Maximum internal leakage | 10 in ³ /min | - Note: At 207 bar (3000 psi) |

Temperature Ratings

| | | |
|---------------------|-------------------------------|-----------------------------|
| Storage temperature | -40 to 120 °C (-40 to 250 °F) | - Note: Buna N |
| | -30 to 250 °C (-20 to 400 °F) | - Note: Fluorocarbon |
| | -50 to 80 °C (-60 to 175 °F) | - Note: Polyurethane |
| Storage temperature | -40 to 70 °C (-40 to 158 °F) | |
| Ambient temperature | -40 to 70 °C (-40 to 158 °F) | |

Operating Parameters

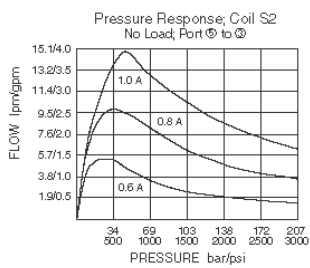
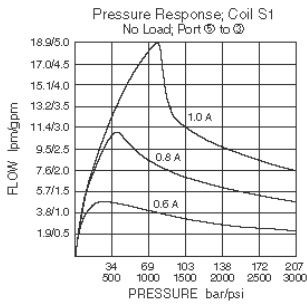
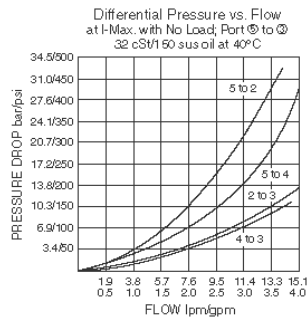
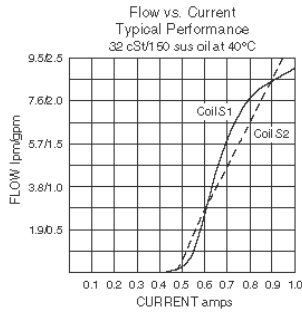
| | | |
|-----------------------|--|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties | |
| Fluid viscosity range | 420 cSt | - Note: Operating temperature must not exceed limits of fluid viscosity or limits of seal storage temperature |

Properties

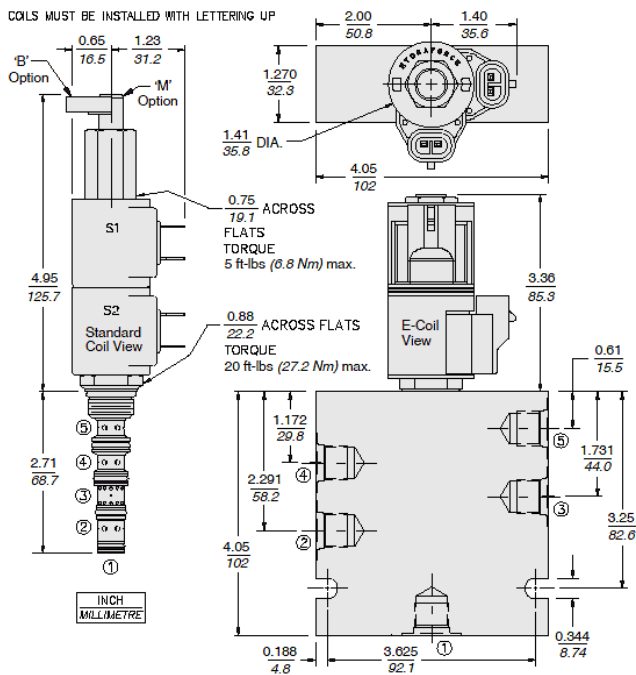
| | | |
|------------------------------|---|--------------------------|
| Unit weight | 0.17 kg (0.38 lb) | - Note: SP08-57D |
| | 0.24 kg (0.52 lb) | - Note: SP08-57DM |
| Internal wetted surface area | 178 cm ² (27.6 in ²) | |



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.15 kg (0.34 lb); 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 lb); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

Standard D-Coil: Weight each: 0.11 kg (0.25 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire.

E-Coil: Weight: 0.14 kg (0.3 lb); Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors.



Installation Specifications

| | |
|-------------------------------|---|
| Cavity | VC08-5 |
| Cartridge installation torque | 33.9 to 40.7 N-m (25 to 30 ft-lb) |
| Maximum allowable torque | 54 N-m (40 ft-lb) - Note: Aluminum |
| Coil nut torque | 5.4 to 6.8 N-m (4 to 5 ft-lb) |
| Orientation restriction | None |

Accessories

| | | |
|----------|--------------|--------------------------------|
| Seal kit | SK08-5X-MMMM | - Note: X = seal option |
| Housings | | |
| Coils | | |

Order Code

| POSITION | CODE | DESCRIPTION |
|----------|---------|--|
| | | SP08-57DE-H-J-L |
| E | | Manual Override |
| E | B | Momentary PushPull Override, 1.5" Diameter Aluminum Knob |
| E | BLANK | NONE |
| E | K | Three Position Override, 1.5" Diameter Aluminum Knob |
| E | M | Momentary Push/Pull Override, Red Knurled Knob |
| H | | Line Body |
| H | 0 | No Body |
| H | 6T | Aluminum SAE 6 |
| J | | Seal |
| J | N | Buna-N |
| J | V | Fluorocarbon |
| J | P | Polyurethane |
| J | U | PPDI Urethane |
| L | | Coil |
| L | 0 | No Coil, D-Coil Spacer |
| L | 0E | No Coil, E-Coil Spacer |
| L | 10DL | 10 VDC, D-Coil, Dual Lead Wires |
| L | 10DS | 10 VDC, D-Coil, Dual Spade |
| L | 10EL | 10 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| L | 10EL/36 | 10 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| L | 10ER | 10 VDC, E-Coil, Deutsch |
| L | 12DG | 12 VDC, D-Coil, DIN 43650 |
| L | 12DL | 12 VDC, D-Coil, Dual Lead Wires, 18 inches long |
| L | 12DL/36 | 12 VDC, D-Coil, Dual Lead Wires, 36 inches long |
| L | 12DL/W | 12 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| L | 12DR | 12 VDC, D-Coil, Deutsch |
| L | 12DS | 12 VDC, D-Coil, Dual Spade |
| L | 12EG | 12 VDC, E-Coil, DIN 43650 |
| L | 12EJ | 12 VDC, E-Coil, AMP Jr. |
| L | 12EL | 12 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| L | 12EL/36 | 12 VDC, E-Coil, Dual Lead Wires, 36 inches long |



| POSITION | CODE | DESCRIPTION |
|----------|---------|--|
| L | 12ER | 12 VDC, E-Coil, Deutsch |
| L | 12EY | 12 VDC, E-Coil, Metri-Pack 150 |
| L | 20DG | 20 VDC, D-Coil, DIN 43650 |
| L | 20DS | 20 VDC, D-Coil, Dual Spade |
| L | 20ER | 20 VDC, E-Coil, Deutsch |
| L | 24AG | 24 VDC, D-Coil, DIN 43650 |
| L | 24AP | 24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| L | 24DG | 24 VDC, D-Coil, DIN 43650 |
| L | 24DL | 24 VDC, D-Coil, Dual Lead Wires, 18 inches long |
| L | 24DL/36 | 24 VDC, D-Coil, Dual Lead Wires, 36 inches long |
| L | 24DL/W | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| L | 24DR | 24 VDC, D-Coil, Deutsch |
| L | 24DS | 24 VDC, D-Coil, Dual Spade |
| L | 24EG | 24 VDC, E-Coil, DIN 43650 |
| L | 24EJ | 24 VDC, E-Coil, AMP Jr. |
| L | 24ER | 24 VDC, E-Coil, Deutsch |
| L | 24EY | 24 VDC, E-Coil, Metri-Pack 150 |
| L | 36DG | 36 VDC, D-Coil, DIN 43650 |
| L | 36DS | 36 VDC, D-Coil, Dual Spade |

