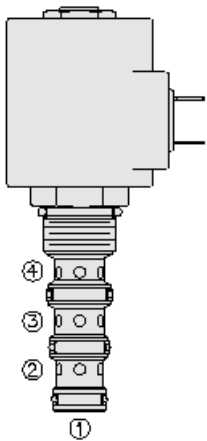




## Overview



### Description

A solenoid-operated, 4 port, 2 position, direct-acting spool type, screw in hydraulic cartridge valve

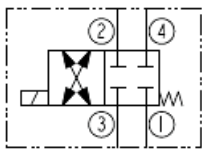
### Operation

When de-energized, the SV10-41 blocks flow to all ports. When energized, the spool shifts to open flow between port 3 and port 4, as well as from port 2 to port 1

### Features

- Continuous-duty rated coil.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- All ports may be fully pressurized.
- Unitized, molded coil design.
- Manual override option.
- Optional waterproof E&E Coils rated up to IP69K.
- Industry-common cavity.

### Symbol



## Ratings

### Pressure Ratings

|                 |                    |
|-----------------|--------------------|
| Pressure rating | 207 bar (3000 psi) |
| Proof pressure  | 276 bar (4000 psi) |
| Burst pressure  | 621 bar (9000 psi) |

### Flow Ratings

|                          |   |
|--------------------------|---|
| Flow rating              | 22.7 lpm (6 gpm)  |
| Maximum internal leakage | 5 in <sup>3</sup> /min - <b>Note:</b> At 207 bar (3000 psi) |

### Temperature Ratings

|                             |                               |  |
|-----------------------------|-------------------------------|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) | - <b>Note:</b> With buna N seals       |
|                             | -26 to 204 °C (-15 to 400 °F) | - <b>Note:</b> With fluorocarbon seals |

## Operating Parameters

|                                       |  |   |
|---------------------------------------|--|---|
| Cleanliness                           | All surfaces in contact with working fluid to meet jds-g169, 5.6 cleanliness level |   |
| Absolute maximum particle size        | 0.5 mm (0.02 in)   | - <b>Note:</b> Packaging to maintain cleanliness level during shipping and handling |
| Maximum operating contamination level | Iso4406 18/16/13   |   |

## Properties

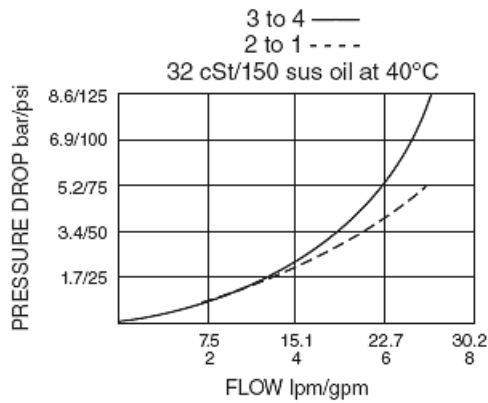
|                               |   |
|-------------------------------|---|
| Maximum allowable contaminant | 0.712 mg                                    |
| Unit weight                   | 0.20 kg (0.43 lb)                           |
| Internal wetted surface area  | 197 cm <sup>2</sup> (30.5 in <sup>2</sup> ) |

## Electrical Parameters

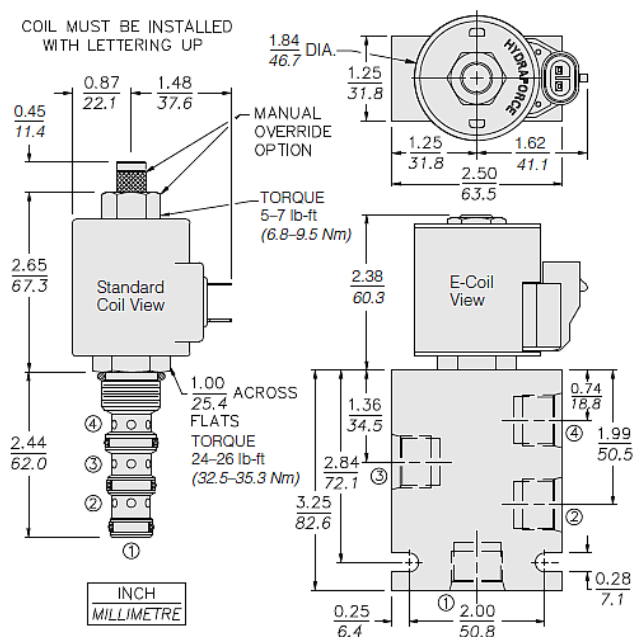
|                  |  |
|------------------|--|
| Pull in voltage  | Pull-in 85% of nominal at 40 °C (104 °F) |
| Drop out voltage | 5% of nominal                            |



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.20 kg (0.45 lb); 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 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: 0.27 kg (0.60 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire.

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

## Installation Specifications

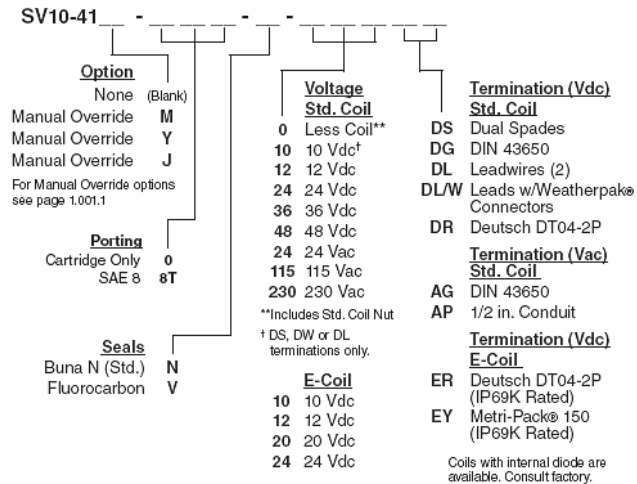
|                               |                                   |
|-------------------------------|-----------------------------------|
| Cavity                        | VC10-4                            |
| Cartridge installation torque | 32.5 to 35.3 N-m (24 to 26 ft-lb) |
| Maximum allowable torque      | 67.8 N-m (50 ft-lb)               |
| Coil nut torque               | 6.8 to 9.5 N-m (5 to 7 ft-lb)     |
| Orientation restriction       | None                              |



## Accessories

Seal kit SK10-4X-MMM  
Housings  
Coils

## Order Code



| POSITION | CODE   | DESCRIPTION                                     |
|----------|--------|---|
|          |        | SV10-41E-H-J-L                                  |
| E        |        | Manual Override                                 |
| E        | BLANK  | NONE  |
| E        | J      | Momentary Pull Override, #10-32 threads         |
| E        | M      | Two Position Override, Red Knurled Knob         |
| E        | Y      | Momentary Pull Override, Red Knurled Knob       |
| H        |        | Line Body                                       |
| H        | 0      | No Body   |
| H        | 6T     | Aluminum SAE 6                                  |
| H        | 8T     | Aluminum SAE 8                                  |
| H        | 6TD    | Ductile Iron SAE 6                              |
| J        |        | Seal  |
| J        | N      | Buna-N  |
| J        | V      | Fluorocarbon                                    |
| J        | P      | Polyurethane                                    |
| J        | U      | PPDI Urethane                                   |
| L        |        | Coil  |
| L        | 0      | No Coil   |
| L        | 10DG   | 10 VDC, D-Coil, DIN 43650                       |
| L        | 10DL   | 10 VDC, D-Coil, Dual Lead Wires                 |
| L        | 10DR/D | 10 VDC, D-Coil, Deutsch with Diode              |
| L        | 10DS   | 10 VDC, D-Coil, Dual Spade                      |
| L        | 10EL   | 10 VDC, E-Coil, Dual Lead Wires                 |
| L        | 10ER   | 10 VDC, E-Coil, Deutsch                         |
| L        | 10ER/Z | 10 VDC, E-Coil, Deutsch with Zener Diode        |
| L        | 12DG   | 12 VDC, D-Coil, DIN 43650                       |
| L        | 12DL   | 12 VDC, D-Coil, Dual Lead Wires, 18 inches long |



| POSITION | CODE     | DESCRIPTION   |
|----------|----------|---|
| 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        | 12DL/W/D | 12 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode      |
| L        | 12DR     | 12 VDC, D-Coil, Deutsch   |
| L        | 12DR/D   | 12 VDC, D-Coil, Deutsch with Diode                              |
| L        | 12DR/Z   | 12 VDC, D-Coil, Deutsch with Zener Diode                        |
| 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                 |
| L        | 12EL/W/Z | 12 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| L        | 12EL/Z   | 12 VDC, E-Coil, Dual Lead Wires with Zener Diode                |
| L        | 12ER     | 12 VDC, E-Coil, Deutsch   |
| L        | 12ER/Z   | 12 VDC, E-Coil, Deutsch with Zener Diode                        |
| L        | 12EY     | 12 VDC, E-Coil, Metri-Pack 150                                  |
| L        | 12EY/Z   | 12 VDC, E-Coil, Metri-Pack 150 with Zener Diode                 |
| L        | 20DR/D   | 20 VDC, D-Coil, Deutsch with Diode                              |
| 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                                 |
| L        | 24DL/W   | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak                 |
| L        | 24DL/W/D | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode      |
| L        | 24DP     | 24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires                |
| L        | 24DR     | 24 VDC, D-Coil, Deutsch   |
| L        | 24DR/D   | 24 VDC, D-Coil, Deutsch with Diode                              |
| 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        | 24EL     | 24 VDC, E-Coil, Dual Lead Wires, 18 inches long                 |
| L        | 24EL/36  | 24 VDC, E-Coil, Dual Lead Wires, 36 inches long                 |
| L        | 24EL/W/Z | 24 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| L        | 24ER     | 24 VDC, E-Coil, Deutsch   |
| L        | 24ER/Z   | 24 VDC, E-Coil, Deutsch with Zener Diode                        |
| L        | 24EY     | 24 VDC, E-Coil, Metri-Pack 150                                  |
| L        | 24EY/Z   | 24 VDC, E-Coil, Metri-Pack 150 with Zener Diode                 |
| L        | 36DS     | 36 VDC, D-Coil, Dual Spade                                      |
| L        | 115AG    | 115 VAC, D-Coil, DIN 43650                                      |
| L        | 115AP    | 115 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires               |
| L        | 230AG    | 230 VAC, D-Coil, DIN 43650                                      |



| POSITION | CODE  | DESCRIPTION                                       |
|----------|-------|---|
| L        | 230AP | 230 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires |