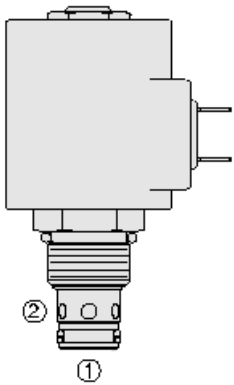
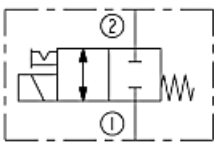




## Overview



### Symbol



### Description

A solenoid-operated, 2 port, normally closed, direct-acting, spool-type, screw in hydraulic cartridge valve, designed to operate as a bidirectional blocking valve

### Operation

When de-energized, the SV10-24X blocks flow in both directions. When energized, the cartridges spool shifts to open the bidirectional flow path

### Features

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

## Ratings

### Pressure Ratings

|                 |                    |
|-----------------|--------------------|
| Pressure rating | 207 bar (3000 psi) |
| Proof pressure  | 276 bar (4000 psi) |
| Burst pressure  | 620 bar (9000 psi) |

### Flow Ratings

|                          |                                      |                                      |
|--------------------------|--------------------------------------|--------------------------------------|
| Flow rating              | - <b>Note:</b> See performance chart |                                      |
| Maximum internal leakage | 82 ml/min (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 |
|                             | -54 to 107 °C (-65 to 225 °F) | - <b>Note:</b> With polyurethane seals |
| Storage temperature         | -40 to 70 °C (-40 to 160 °F)  |  |
| Ambient temperature         | -40 to 70 °C (-40 to 160 °F)  |  |

## Operating Parameters

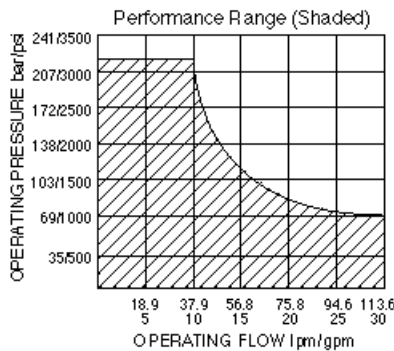
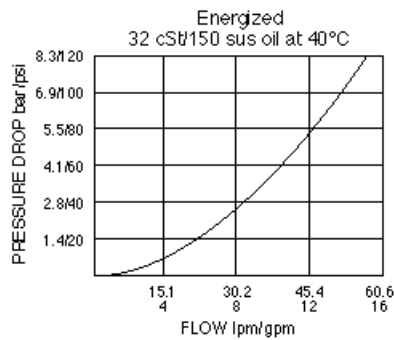
|                                       |  |
|---------------------------------------|--|
| Fluids                                | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range                 | 7.4 to 420 cSt   |
| Maximum operating contamination level | 20/18/14 per ISO 4406  |

## Properties

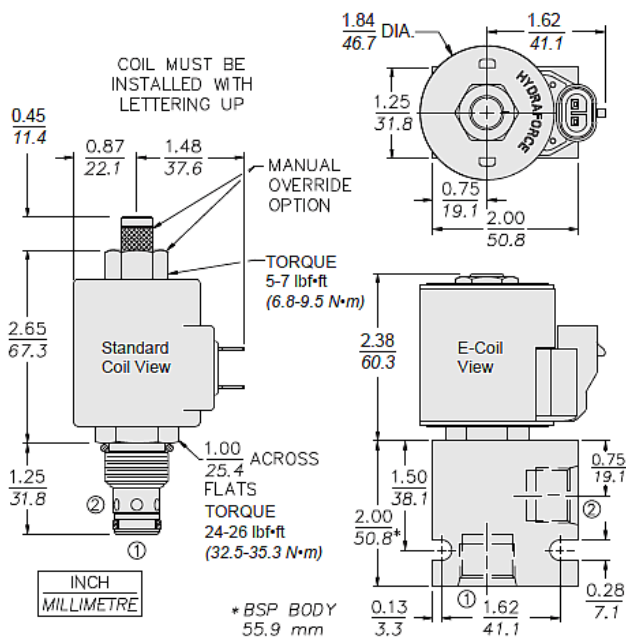
|                              |   |
|------------------------------|---|
| Unit weight                  | 0.16 kg (0.34 lb)                           |
| Internal wetted surface area | 99 cm <sup>2</sup> (15.41 in <sup>2</sup> ) |



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.16 kg (0.35 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-up standard.

**Standard Ported Body:** Weight: 0.16 kg (0.35 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                        | VC10-2                            |
| Cartridge installation torque | 32.5 to 35.3 N-m (24 to 26 ft-lb) |
| Maximum allowable torque      | 61.0 N-m (45 ft-lb)               |
| Coil nut torque               | 6.8 to 9.5 N-m (5 to 7 ft-lb)     |
| Orientation restriction       | None                              |

## Accessories

|          |           |                                  |
|----------|-----------|----------------------------------|
| Seal kit | SK10-2X-M | - <b>Note:</b> (x = seal option) |
| Housings |           |                                  |
| Coils    |           |                                  |

## Order Code

| POSITION | CODE   | DESCRIPTION                                    |
|----------|--------|--|
|          |        | SV10-A24EG-H-JL-M                              |
| A        |        | Position Sensor Option                         |
| A        | 24     | Standard                                       |
| A        | P24A   | Position Indicator Switch with Restricted Flow |
| 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      |
| G        |        | Screen   |
| G        | BLANK  | NONE   |
| G        | S      | 100 Mesh Screen                                |
| H        |        | Line Body                                      |
| H        | 0      | No Body  |
| H        | 6T     | Aluminum SAE 6                                 |
| H        | 8T     | Aluminum SAE 8                                 |
| H        | 6TD    | Ductile Iron SAE 6                             |
| H        | 8TD    | Ductile Iron SAE 8                             |
| H        | 2B     | Aluminum BSPP 1/4" (2)                         |
| H        | 3B     | Aluminum BSPP 3/8" (3)                         |
| H        | 4B     | Aluminum BSPP 1/2" (4)                         |
| H        | 4BD    | Ductile Iron BSPP 1/2" (4)                     |
| 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             |



| POSITION | CODE     | DESCRIPTION   |
|----------|----------|---|
| 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                 |
| 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                        |



| POSITION | CODE   | DESCRIPTION                                       |
|----------|--------|---|
| 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                        |
| L        | 230AP  | 230 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| M        |        | Position Sensor Termination                       |
| M        | BLANK  | No Position Sensor                                |
| M        | M3     | Neutral Sense, M12-4P, Dual Output NC/NO          |
| M        | N3     | Neutral Sense, DT04-4P, Dual Output NC/NO         |

