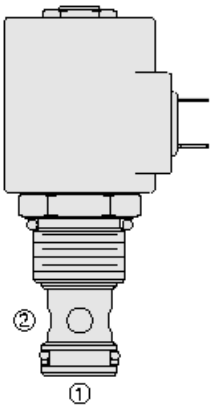




Overview



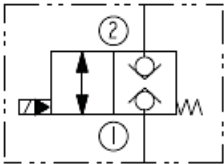
Description

A solenoid-operated, 2 way, normally closed, bi-directional, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage bi-directionally.

Features

- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Cost-effective cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 240 bar (3500 psi) - **Note:** Flow required to reseal the internal poppet check balls when increasing the differential pressure across A de-energized valve from zero psid (zero bar) is max 2.8 lpm (0.75 gpm)

Flow Ratings

Maximum internal leakage 7 drops/min - **Note:** Max at 240 bar (3500 psi)

Temperature Ratings

| | | |
|-----------------------------|-------------------------------|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) | - Note: With buna N seals |
| | -26 to 204 °C (-15 to 400 °F) | - Note: With viton seals |
| | -54 to 107 °C (-65 to 225 °F) | - Note: 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

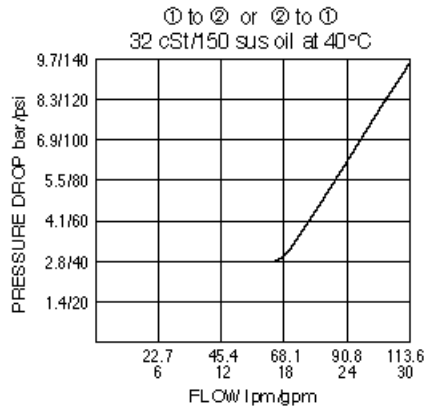
| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 20/18/14 per ISO 4406 |

Properties

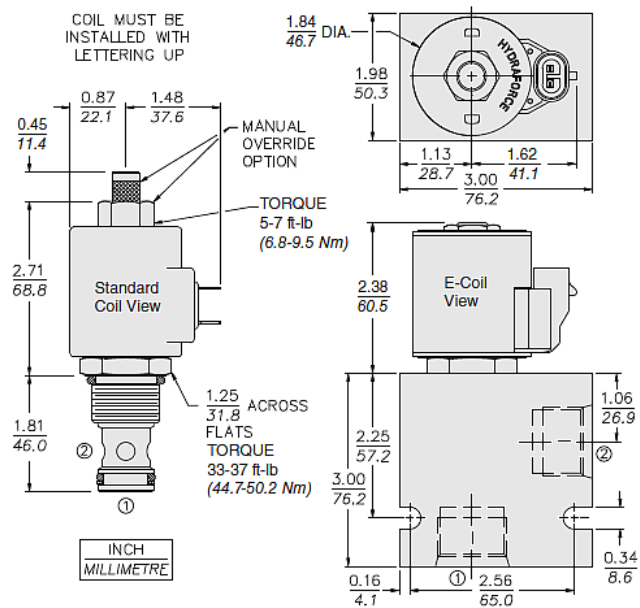
| | |
|------------------------------|---|
| Unit weight | 0.27 kg (0.60 lb) |
| Internal wetted surface area | 16774.2 mm ² (26.0 in ²) |



Performance



Dimensions



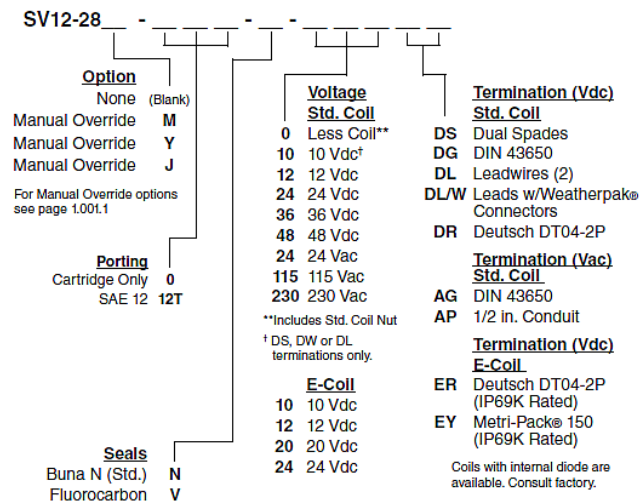
Installation Specifications

| | |
|-------------------------------|-----------------------------------|
| Cavity | VC12-2 |
| Cartridge installation torque | 44.8 to 50.2 N-m (33 to 37 ft-lb) |
| Maximum allowable torque | 73.4 N-m (55 ft-lb) |
| Coil nut torque | 6.8 to 9.5 N-m (5 to 7 ft-lb) |
| Orientation restriction | None |

Accessories

| | | |
|----------|-----------|--------------------------------|
| Seal kit | SK12-2X-M | - Note: X = seal option |
|----------|-----------|--------------------------------|

Order Code



Model Options

SV12-28E-H-J-L

E Manual Override

| CODE | DESCRIPTION |
|-------|---|
| BLANK | NONE |
| J | Momentary Pull Override, #10-32 threads |
| M | Two Position Override, Red Knurled Knob |
| Y | Momentary Pull Override, Red Knurled Knob |

H Line Body

| CODE | DESCRIPTION |
|------|--------------------------|
| 0 | No Body |
| 10T | Aluminum SAE 10 |
| 12T | Aluminum SAE 12 |
| 16T | Aluminum SAE 16 |
| 12TD | Ductile Iron SAE 12 |
| 16TD | Ductile Iron SAE 16 |
| 8B | Aluminum BSPP 1" (8) |
| 8BD | Ductile Iron BSPP 1" (8) |

J Seal

| CODE | DESCRIPTION |
|------|---------------|
| N | Buna-N |
| V | Fluorocarbon |
| P | Polyurethane |
| U | PPDI Urethane |

L Coil

| CODE | DESCRIPTION |
|--------|------------------------------------|
| 0 | No Coil |
| 10DG | 10 VDC, D-Coil, DIN 43650 |
| 10DL | 10 VDC, D-Coil, Dual Lead Wires |
| 10DR/D | 10 VDC, D-Coil, Deutsch with Diode |
| 10DS | 10 VDC, D-Coil, Dual Spade |



| CODE | DESCRIPTION |
|----------|---|
| 10EL | 10 VDC, E-Coil, Dual Lead Wires |
| 10ER | 10 VDC, E-Coil, Deutsch |
| 10ER/Z | 10 VDC, E-Coil, Deutsch with Zener Diode |
| 12DG | 12 VDC, D-Coil, DIN 43650 |
| 12DL | 12 VDC, D-Coil, Dual Lead Wires, 18 inches long |
| 12DL/36 | 12 VDC, D-Coil, Dual Lead Wires, 36 inches long |
| 12DL/W | 12 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| 12DL/W/D | 12 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode |
| 12DR | 12 VDC, D-Coil, Deutsch |
| 12DR/D | 12 VDC, D-Coil, Deutsch with Diode |
| 12DR/Z | 12 VDC, D-Coil, Deutsch with Zener Diode |
| 12DS | 12 VDC, D-Coil, Dual Spade |
| 12EG | 12 VDC, E-Coil, DIN 43650 |
| 12EJ | 12 VDC, E-Coil, AMP Jr. |
| 12EL | 12 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| 12EL/36 | 12 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 12EL/W/Z | 12 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| 12EL/Z | 12 VDC, E-Coil, Dual Lead Wires with Zener Diode |
| 12ER | 12 VDC, E-Coil, Deutsch |
| 12ER/Z | 12 VDC, E-Coil, Deutsch with Zener Diode |
| 12EY | 12 VDC, E-Coil, Metri-Pack 150 |
| 12EY/Z | 12 VDC, E-Coil, Metri-Pack 150 with Zener Diode |
| 20DR/D | 20 VDC, D-Coil, Deutsch with Diode |
| 20DS | 20 VDC, D-Coil, Dual Spade |
| 20ER | 20 VDC, E-Coil, Deutsch |
| 24AG | 24 VDC, D-Coil, DIN 43650 |
| 24AP | 24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| 24DG | 24 VDC, D-Coil, DIN 43650 |
| 24DL | 24 VDC, D-Coil, Dual Lead Wires |
| 24DL/W | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak |
| 24DL/W/D | 24 VDC, D-Coil, Dual Lead Wires with Weatherpak with Diode |
| 24DP | 24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| 24DR | 24 VDC, D-Coil, Deutsch |
| 24DR/D | 24 VDC, D-Coil, Deutsch with Diode |
| 24DS | 24 VDC, D-Coil, Dual Spade |
| 24EG | 24 VDC, E-Coil, DIN 43650 |
| 24EJ | 24 VDC, E-Coil, AMP Jr. |
| 24EL | 24 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| 24EL/36 | 24 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 24EL/W/Z | 24 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| 24ER | 24 VDC, E-Coil, Deutsch |
| 24ER/Z | 24 VDC, E-Coil, Deutsch with Zener Diode |



| CODE | DESCRIPTION |
|--------|---|
| 24EY | 24 VDC, E-Coil, Metri-Pack 150 |
| 24EY/Z | 24 VDC, E-Coil, Metri-Pack 150 with Zener Diode |
| 36DS | 36 VDC, D-Coil, Dual Spade |
| 115AG | 115 VAC, D-Coil, DIN 43650 |
| 115AP | 115 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires |
| 230AG | 230 VAC, D-Coil, DIN 43650 |
| 230AP | 230 VAC, D-Coil, 1/2" Conduit and Dual Lead Wires |