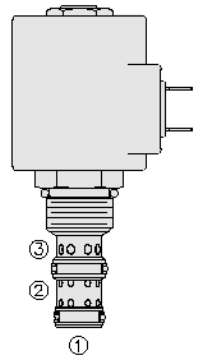
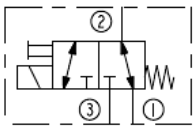
SOLENOID CARTRIDGE VALVE SPOOL, 3 WAY

Overview



SYMBOL



Description

A solenoid-operated, 3 way, direct-acting, spool-type, screw-in hydraulic cartridge valve.

Operation

When de-energized, the SV10-34 allows flow from port 2 to port 1, while blocking flow at port 3. When energized, the valve's spool shifts open from port 2 to port 3, while blocking flow at 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-Coils rated up to IP69K.
- Industry common cavity.

Ratings

Pressure Ratings

Pressure rating: 207 bar (3000 psi)

Proof pressure: 345 bar (5000 psi)

Burst pressure: 620 bar (9000 psi)

Flow Ratings

Flow rating: 22.7 lpm (6 gpm)

Maximum internal leakage: 114.7 ml/min (7 in^3/min)

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 fluorocarbon seals

-54 to 107 °C (-65 to 225 °F) note: With polyurethane seals

-54 to 107 °C (-65 to 225 °F) note: With urethane seals

Storage temperature: -40 to 70 °C (-40 to 160 °F)

Ambient temperature: -40 to 90 °C (-40 to 194 °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: 0.17 kg (0.37 lb)

Internal wetted surface area: 139 cm^2 (21.6 in^2)

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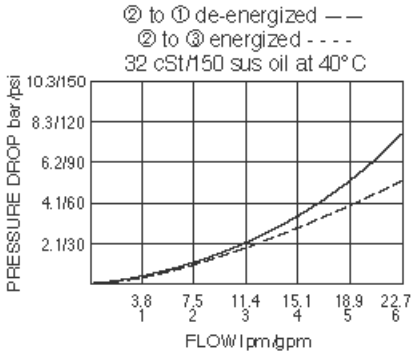
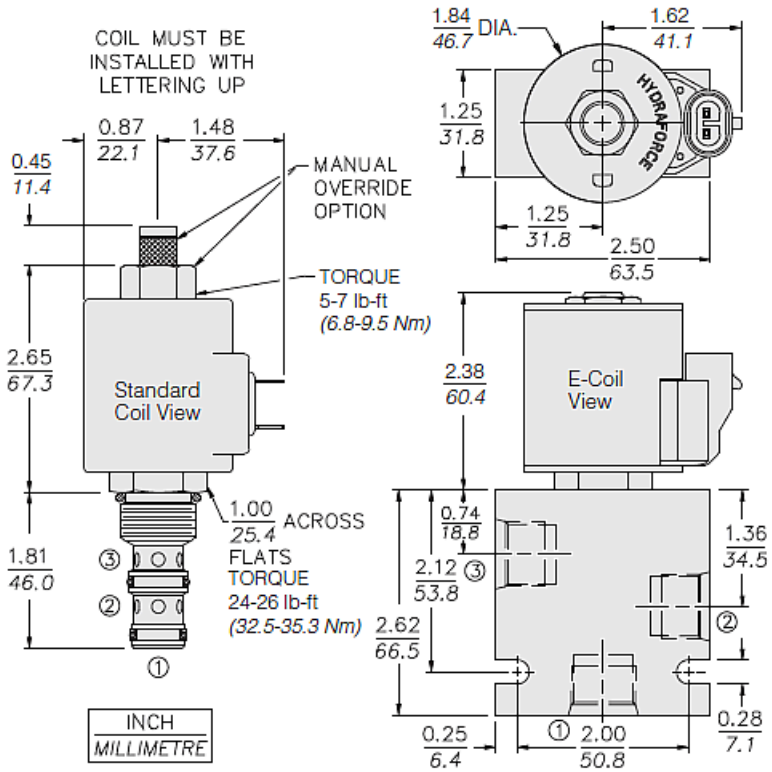
Performance



Dimensions



Installation Specifications

Cavity: VC10-3

10-size-3-way Cavities

Cartridge installation torque: 32.5 to 35.3 N-m (24 to 26 ft-lb)

Coil nut torque: 6.8 to 9.5 N-m (5 to 7 ft-lb)

Orientation restriction: None

Accessories

Seal kit: SK10-3X-MM

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Seal kit installation instructions

Housings: Available 10-3w valve bodies

Coils: 10 size D coils; 10 size E coils

Order Code

SV10-34__ - __ __ __ - __ - __ __ __ __ __

Option
None (Blank)
Manual Override M
Manual Override Y
Manual Override J
For Manual Override options see page 1.001.1

Porting
Cartridge Only 0
SAE 8 8T
3/8 in. BSP* 3B
*BSP Body; U.K. Mfr. Only

Seals
Buna N (Std.) N
Fluorocarbon V

Voltage
Std. Coil
0 Less Coil**
10 10 Vdc†
12 12 Vdc
24 24 Vdc
36 36 Vdc
48 48 Vdc
24 24 Vac
115 115 Vac
230 230 Vac
**Includes Std. Coil Nut
† DS, DW or DL terminations only.

E-Coil
10 10 Vdc
12 12 Vdc
20 20 Vdc
24 24 Vdc

Termination (Vdc)
Std. Coil
DS Dual Spades
DG DIN 43650
DL Leadwires (2)
DL/W Leads w/Weatherpak® Connectors
DR Deutsch DT04-2P

Termination (Vac)
Std. Coil
AG DIN 43650
AP 1/2 in. Conduit

Termination (Vdc)
E-Coil
ER Deutsch DT04-2P (IP69K Rated)
EY Metri-Pack® 150 (IP69K Rated)

Coils with internal diode are available. Consult factory.

Model Options

SV10-34E-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
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

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

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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
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

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CODE	DESCRIPTION
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
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