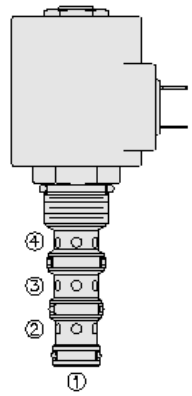
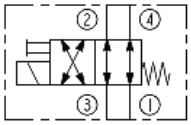
SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

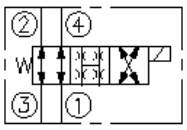
Overview



SYMBOL



TRANSITION:



Description

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

Operation

The SV10-40X allows flow from port 3 to port 2, as well as from port 4 to port 1. When energized, the spool shifts to open port 3 to port 4 and 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-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: 621 bar (9000 psi)

Flow Ratings

Flow rating: 23 lpm (6 gpm)

Maximum internal leakage: 82 ml/min (5 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

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

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

Other Ratings

Response: 36 ms note: Energized (first indication of change of state with 100% voltage applied to the coil with flow at 23 lpm (6 gpm)

20 ms note: De-energized (first indication of change of state with 100% voltage applied to the coil with flow at 23 lpm (6 gpm)

Corrosion protection: 960 hr salt spray per ASTM b117 (gsv10-40x)

SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

Operating Parameters

Fluids: Mineral based or synthetic hydraulic fluid with lubricating properties

Fluid viscosity range: 7.4 to 420 cSt

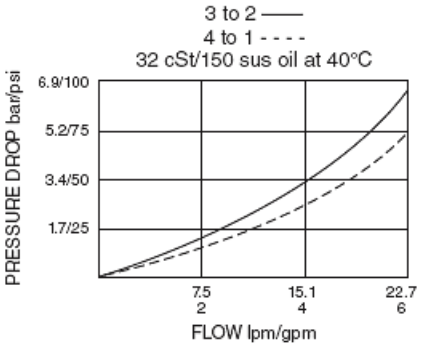
Maximum operating contamination level: 20/18/14 per ISO 4406

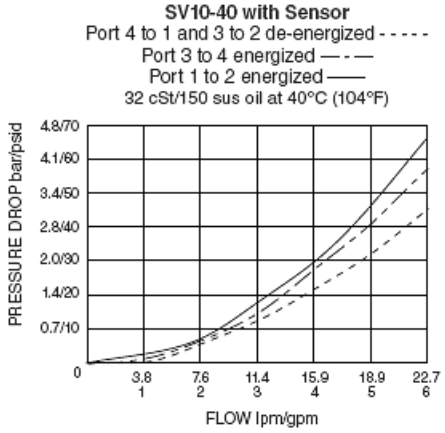
Properties

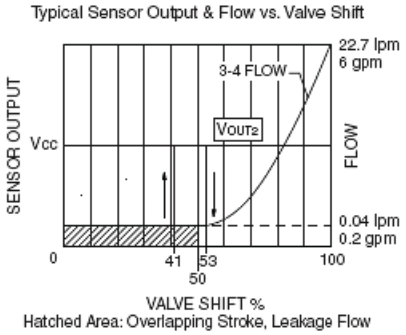
Unit weight: 0.18 kg (0.40 lb)

Internal wetted surface area: 163 cm^2 (25.3 in^2)

Performance

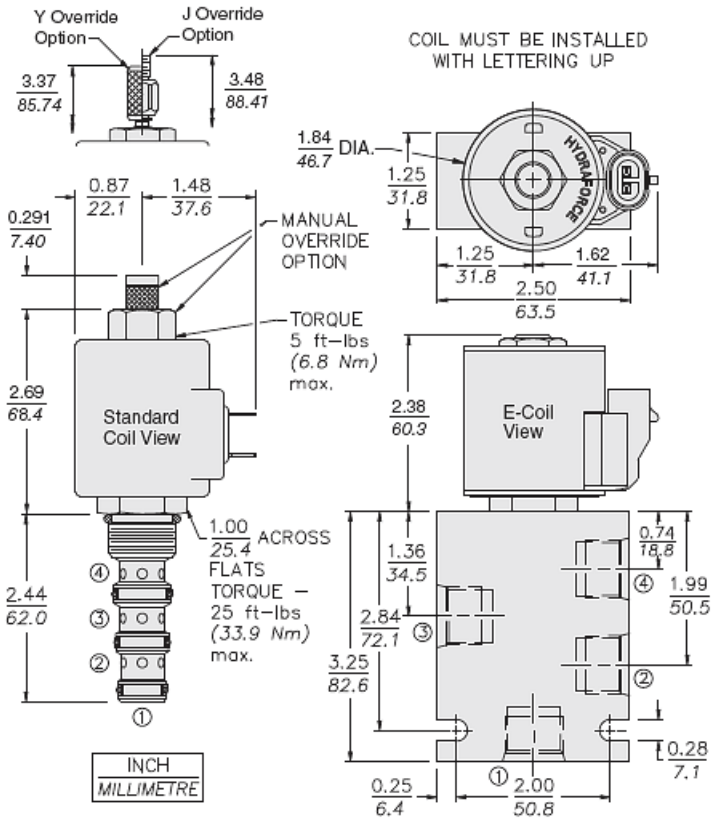






SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

Dimensions



Installation Specifications

Cavity: VC10-4

10-size-4-way Cavities

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

Maximum allowable torque: 54.2 N-m (40 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

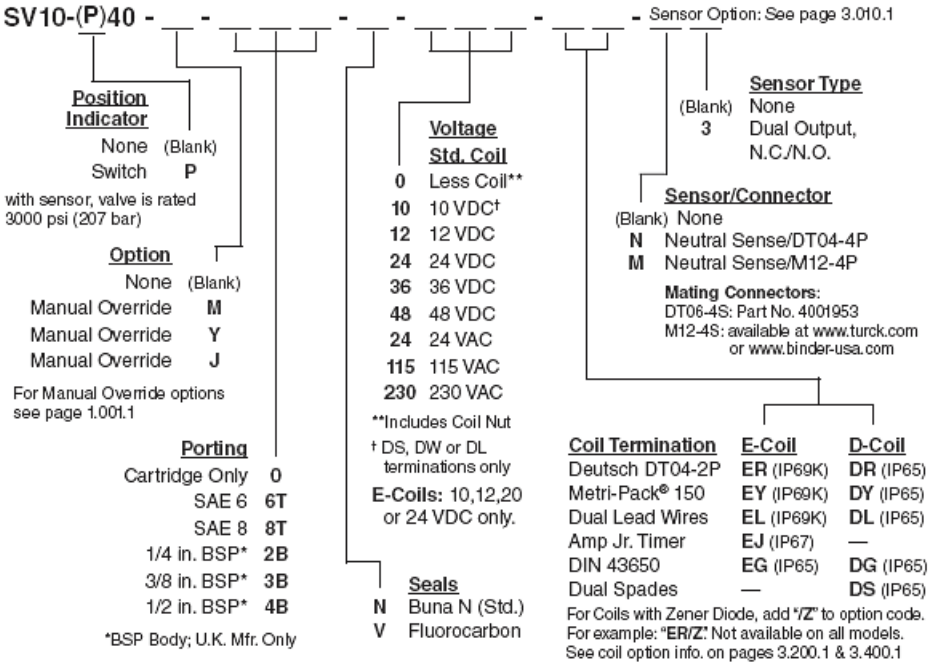
Seal kit installation instructions

Housings: Available 10-4w valve bodies

Coils: 10 size D coils; 10 size E coils

SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

Order Code



Model Options

SV10-A40E-H-J-L-M

A Position Sensor Option

CODE	DESCRIPTION
40	Standard
P40	Position Indicator Switch

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

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

SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

CODE	DESCRIPTION
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
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

SOLENOID CARTRIDGE VALVE SPOOL, 4 PORT, 2 POSITION

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

M Position Sensor Termination

CODE	DESCRIPTION
BLANK	No Position Sensor
M3	Neutral Sense, M12-4P, Dual Output NC/NO
N3	Neutral Sense, DT04-4P, Dual Output NC/NO