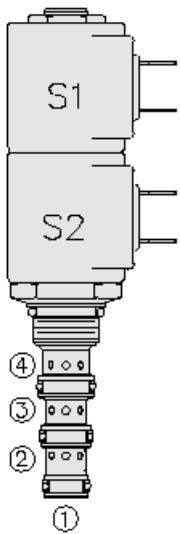




## Overview



### Description

A solenoid operated, direct acting, 3 position, 4-way, closed center spool, proportional directional control. It is a screw in hydraulic cartridge valve for use with general purpose hydraulic fluids. Manual override feature is available as an option.

### Operation

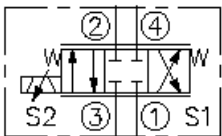
When de-energized, the SP08-47C blocks flow to all ports, when coil #1 is energized, flow is allowed from port 3 to port 4, and from port 2 to port 1. When coil #2 is energized, flow is allowed from port 3 to port 2, and from port 4 to port 1.

**note:** that while port 1 may be fully pressurized, it is not intended for use as the valve's inlet.

### Features

- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Good linearity and hysteresis.
- Industry-common cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating 241 bar (3500 psi)

### Flow Ratings

Flow rating 7.6 lpm (2.0 gpm)

Maximum internal leakage 164 ml/min (10 in<sup>3</sup>/min) from port 1 or 3

- **Note:** At 207 bar (3000 psi) to port 2 or 4, leakage

### Temperature Ratings

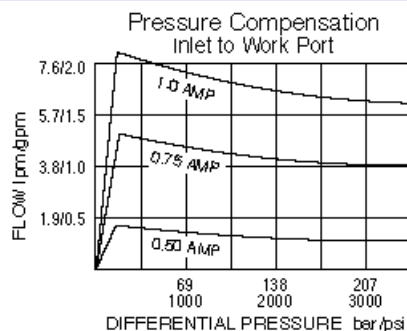
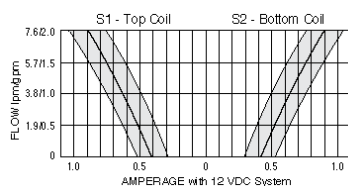
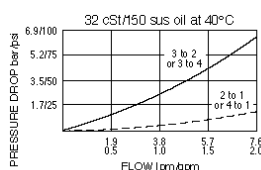
Operating fluid temperature -40 to 120 °C (-40 to 250 °F)  
-30 to 205 °C (-20 to 400 °F)  
-50 to 80 °C (-60 to 175 °F)

- **Note:** With buna N seals  
- **Note:** With fluorocarbon seals  
- **Note:** With polyurethane seals

## Electrical Parameters

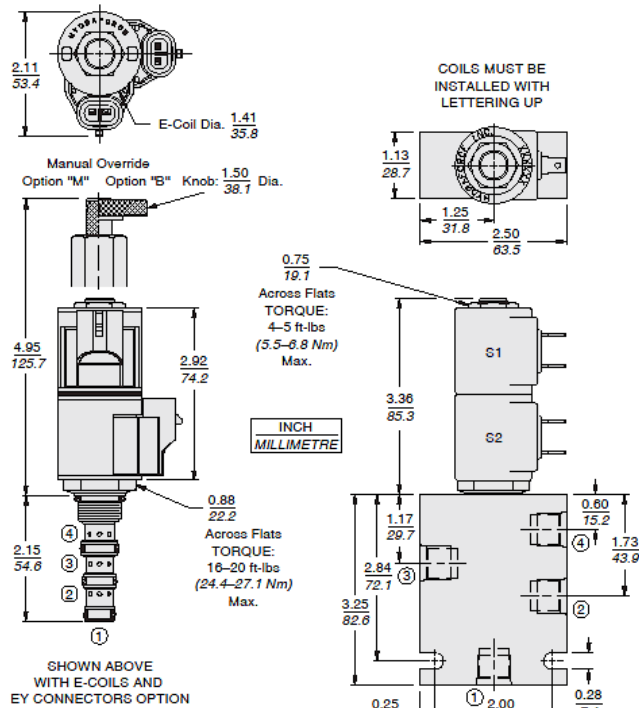
Maximum operating current - **Note:** See chart

## Performance





## Dimensions



## Installation Specifications

Cavity	VC08-4
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Coil nut torque	5.4 to 6.8 N-m (4 to 5 ft-lb)

## Accessories

Seal kit	SK08-4X-MMM
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## Order Code

<b>SP08-47CL</b>	
1,000 Hour Salt Spray Coating	G
<b>Option</b>	
None (Blank)	
Manual Override	M
Manual Override	B
For Manual Override options see page 1.001.1	
<b>Porting</b>	
Cartridge Only	0
SAE 6	6T
1/4 in. BSP*	2B
3/8 in. BSP*	3B
*BSP Body; U.K. Mfr. Only	
<b>Voltage</b>	
Std. D-Coil**	
00 Less Coil**	
12 12 VDC	
24 24 VDC	
**Includes D-Coil Nut and Spacer.	
<b>E-Coil</b>	
12 12 VDC	
24 24 VDC	
<b>Coil Termination</b>	
Less Coil w/Spacer	
Deutsch DT04-2P	ER (IP69K)
Metri-Pack® 150	EY (IP69K)
Dual Lead Wires	EL (IP69K)
Amp Jr. Timer	EJ (IP67)
DIN 43650	EG (IP65)
Dual Spades	—
<b>Seals</b>	
Buna N (Std.)	N
Fluorocarbon	V
For Coils with Zener Diode, add "Z" to option code. For example: "ER/Z". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1	
<b>E-Coil</b>	
E	
<b>D-Coil</b>	
—	
DR (IP65)	
DY (IP65)	
DL (IP65)	
—	
DG (IP65)	
DS (IP65)	

## Model Options

### SP08-47CLE-H-J-L

### E Manual Override

CODE	DESCRIPTION
B	Momentary PushPull Override, 1.5" Diameter Aluminum Knob
BLANK	NONE
K	Three Position Override, 1.5" Diameter Aluminum Knob
M	Momentary Push/Pull Override, Red Knurled Knob

### H Line Body



CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
6TD	Ductile Iron SAE 6
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

**L Coil**

CODE	DESCRIPTION
0	No Coil, D-Coil Spacer
0E	No Coil, E-Coil Spacer
10DL	10 VDC, D-Coil, Dual Lead Wires
10DS	10 VDC, D-Coil, Dual Spade
10EL	10 VDC, E-Coil, Dual Lead Wires, 18 inches long
10EL/36	10 VDC, E-Coil, Dual Lead Wires, 36 inches long
10ER	10 VDC, E-Coil, Deutsch
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
12DR	12 VDC, D-Coil, Deutsch
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
12ER	12 VDC, E-Coil, Deutsch
12EY	12 VDC, E-Coil, Metri-Pack 150
20DG	20 VDC, D-Coil, DIN 43650
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, 18 inches long
24DL/36	24 VDC, D-Coil, Dual Lead Wires, 36 inches long
24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak



CODE	DESCRIPTION
24DR	24 VDC, D-Coil, Deutsch
24DS	24 VDC, D-Coil, Dual Spade
24EG	24 VDC, E-Coil, DIN 43650
24EJ	24 VDC, E-Coil, AMP Jr.
24ER	24 VDC, E-Coil, Deutsch
24EY	24 VDC, E-Coil, Metri-Pack 150
36DG	36 VDC, D-Coil, DIN 43650
36DS	36 VDC, D-Coil, Dual Spade