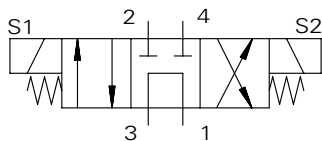


# SV9-10-A - Solenoid Valve

4-way, 3-position spool type solenoid valve  
Up to 19 L/min (5 USgpm) • 210 bar (3000 psi)

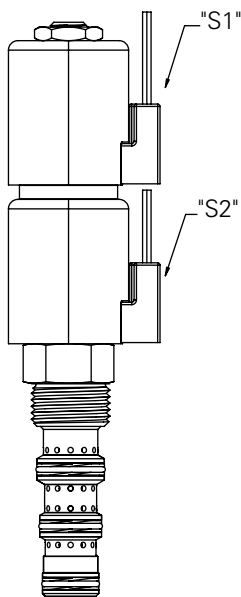


## Operation

In the de-energized position, this valve allows flow from port 3 to port 1 and blocks ports 2 and 4. When solenoid 1 (S1) is energized, flow is directed from port 3 to port 2 and from port 4 to port 1.

When solenoid 2 (S2) is energized, flow is directed from port 3 to port 4 and from port 2 to port 1.

## Sectional View



## Performance Data

### Ratings and Specifications

*Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)*

Typical application pressure (all ports)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Fatigue pressure	3,000 psi per NFPA/T2-6-1 R2-2000
Rated burst pressure	(626 bar) 9090 psi per NFPA/T2-6-1 R2-2000
Max flow	5 USgpm
Temperature range	-40° to 120°C (-40° to 248°F)
Coil duty	Continuous from 85% to 110% of nominal voltage
Coil power	23W
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/16/13
Housing material (standard)	Aluminum
Weight including coil	0.95Kg (2.1 lbs)
Seal kit	889625 (Buna-N), 566080 (Viton®)
Internal leakage	246 cm <sup>3</sup> /min (15 in <sup>3</sup> /min) max. @ 210 bar (3000 psi)

Viton is a registered trademark of E.I. DuPont

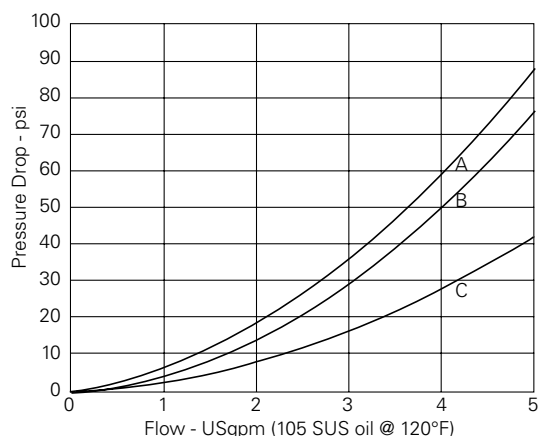
Endurance tested to 1 million cycles at full rated flow and pressure.

## Description

The SV9-10-A is a 4-way, 3-position, direct acting, spool type directional control valve.

## Pressure Drop

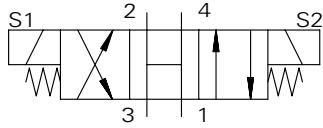
Cartridge Only



- A** - Port 3 to port 1, de-energized
- B** - Port 3 to port 2, port 3 to port 4
- C** - Port 2 to port 1, port 4 to port 1

# SV9-10-B - Solenoid Valve

4-way, 3-position spool type solenoid valve  
Up to 23 L/min (6 USgpm) • 210 bar (3000 psi)

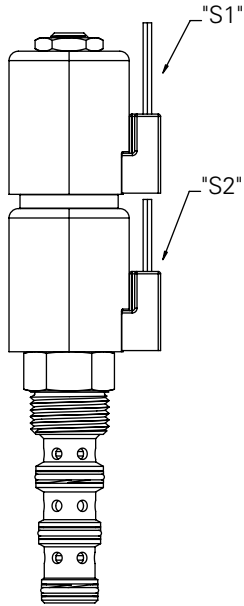


## Operation

In the de-energized position, all ports are open to each other. When solenoid 1 (S1) is energized, flow is directed from port 3 to port 4 and from port 2 to port 1.

When solenoid 2 (S2) is energized, flow is directed from port 3 to port 2 and from port 4 to port 1.

## Sectional View



## Performance Data

### Ratings and Specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Fatigue pressure	3,000 psi per NFPA/T2-6-1 R2-2000
Rated burst pressure	(626 bar) 9090 psi per NFPA/T2-6-1 R2-2000
Max flow	6 USgpm
Temperature range	-40° to 120°C (-40° to 248°F)
Coil duty	Continuous from 85% to 110% of nominal voltage
Coil power	26W
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/16/13
Housing material (standard)	Aluminum
Weight including coil	0.95 Kg (2.1 lbs)
Seal kit	889625 Buna-N, 566080 (Viton®)
Internal leakage	246 cm <sup>3</sup> /min (15 in <sup>3</sup> /min) max. @ 210 bar (3000 psi)

Viton is a registered trademark of E.I. DuPont

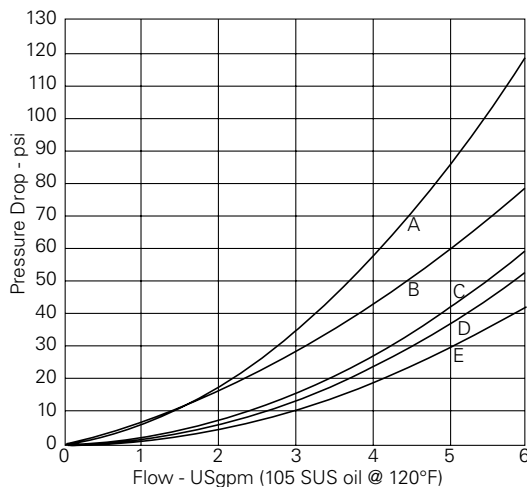
Endurance tested to 1 million cycles at full rated flow and pressure.

## Description

The SV9-10-B is a 4-way, 3-position, direct acting, spool type directional valve.

## Pressure Drop

Cartridge Only



**A** - Port 3 to port 1, de-energized

**B** - Port 3 to port 2, port 3 to port 4

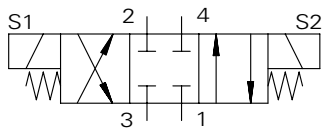
**C** - Port 4 to port 1, port 2 to port 1, de-energized

**D** - Port 2 to port 1

**E** - Port 4 to port 1

# SV9-10-E - Solenoid Valve

4-way, 3-position spool type solenoid valve  
Up to 23 L/min (6 USgpm) • 210 bar (3000 psi)

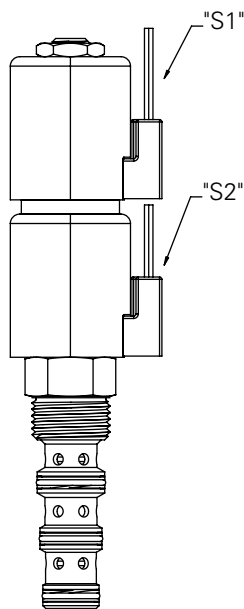


## Operation

In the de-energized (center) position, all ports are blocked. When solenoid 1 (S1) is energized, flow is directed from port 3 to port 4 and from port 2 to port 1.

When solenoid 2 (S2) is energized, flow is directed from port 3 to port 2 and from port 4 to port 1.

## Sectional View



## Performance Data

### Ratings and Specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Fatigue pressure	3,000 psi per NFPA/T2-6-1 R2-2000
Rated burst pressure	(626 bar) 9090 psi per NFPA/T2-6-1 R2-2000
Max flow	6 USsgpm
Temperature range	-40° to 120°C (-40° to 248°F)
Coil duty	Continuous from 85% to 110% of nominal voltage
Coil power	26W
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/16/13
Housing material (standard)	Aluminum
Weight including coil	0.95 Kg (2.1 lbs)
Seal kit	889625 (Buna-N), 566080 (Viton®)
Internal leakage	246 cm <sup>3</sup> /min (15 in <sup>3</sup> /min) max. @ 210 bar (3000 psi)

Viton is a registered trademark of E.I. DuPont

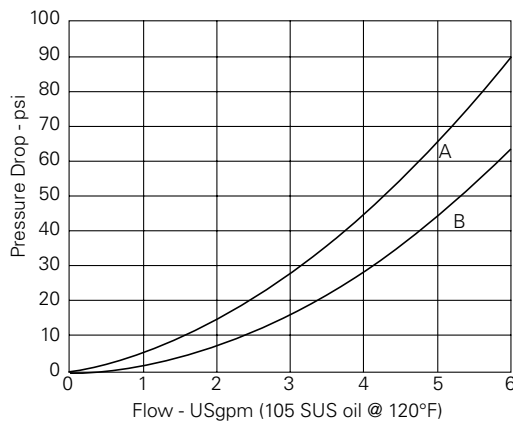
Endurance tested to 1 million cycles at full rated flow and pressure.

## Description

The SV9-10-E is a 4-way, 3-position, direct acting, spool type directional valve.

## Pressure Drop

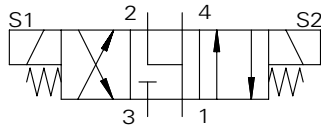
Cartridge Only



- A** - Port 3 to port 2,  
port 3 to port 4
- B** - Port 2 to port 1,  
port 4 to port 1

# SV9-10-F - Solenoid Valve

4-way, 3-position spool type solenoid valve  
Up to 23 L/min (6 USgpm) • 210 bar (3000 psi)

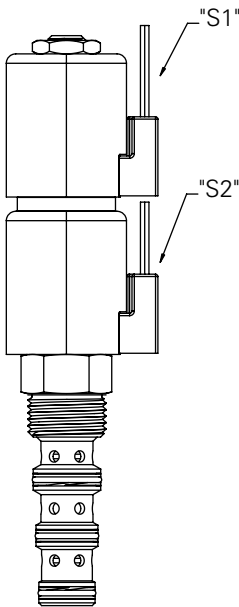


## Operation

In the de-energized (center) position, port 1, port 2, and port 4 are open to each other while port 3 is blocked. When solenoid 1 (S1) is energized, flow is

directed from port 3 to port 4 and from port 2 to port 1. When solenoid 2 (S2) is energized, flow is directed from port 3 to port 2 and from port 4 to port 1.

## Sectional View



## Performance Data

### Ratings and Specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Fatigue pressure	3,000 psi per NFPA/T2-6-1 R2-2000
Rated burst pressure	(626 bar) 9090 psi per NFPA/T2-6-1 R2-2000
Max flow	6 USgpm
Temperature range	-40° to 120°C (-40° to 248°F)
Coil duty	Continuous from 85% to 110% of nominal voltage
Coil power	26W
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/16/13
Housing material (standard)	Aluminum
Weight including coil	0.95 Kg (2.1 lbs)
Seal kit	889625 (Buna-N), 566080 (Viton®)
Internal leakage	246 cm <sup>3</sup> /min (15 in <sup>3</sup> /min) max. @ 210 bar (3000 psi)

Viton is a registered trademark of E.I. DuPont

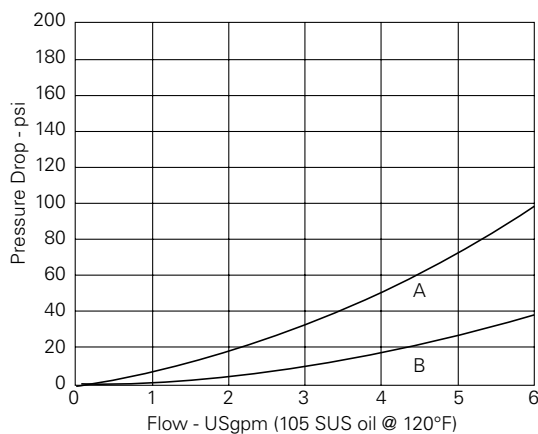
Endurance tested to 1 million cycles at full rated flow and pressure.

## Description

The SV9-10-F is a 4-way, 3-position, direct acting, spool type directional valve.

## Pressure Drop

Cartridge Only



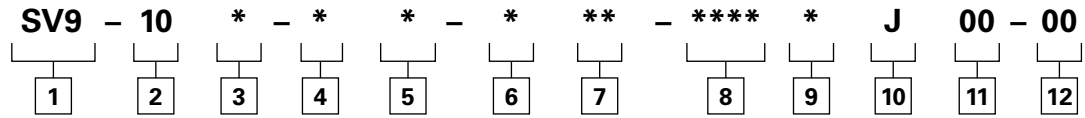
**A** - Port 3 to port 2,  
port 3 to port 4

**B** - Port 2 to port 1,  
port 4 to port 1

# SV9-10 - Solenoid Valve

4-way, 3-position spool type solenoid valve  
Up to 23 L/min (6 USgpm) • 210 bar (3000 psi)

## Model Code



### 1 Function

SV9 - Solenoid valve

### 2 Size

10 - 10 size

### 3 Seal Material

Blank - Buna-N  
V - Viton

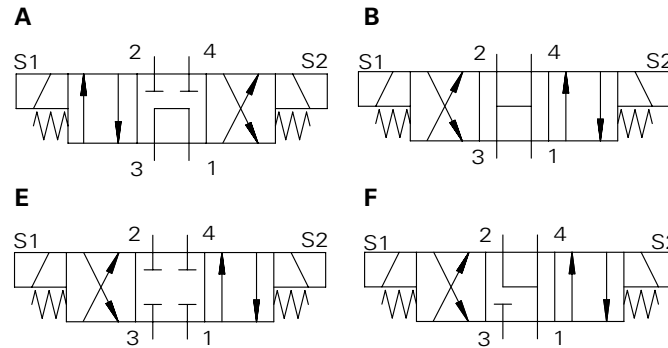
### 5 Manual Override Option

Blank - No manual override  
M - Manual override

### 6 Housing Material

0 - Cartridge only  
A - Aluminium  
S - Steel

### 4 Spool Center Condition



### 7 Port Sizes

(These model digits are not stamped on the valve.)

Code	Port Size	Housing Number	
		Aluminium Light Duty	Aluminium Fatigue Rated
Blank		Cartridge only	
3B	3/8" BSPP	02-179705	
2G	1/4" BSPP		876709
3G	3/8" BSPP		876715
6H	SAE 4		876708
8H	SAE 6		876713
6T	SAE 6	566161	

See section J for housings.

### 8 Voltage Rating<sup>1</sup>

00 - No coil  
012D - 12VDC  
024D - 24VDC  
036D - 36VDC  
024A - 24VAC  
115A - 115VAC  
230A - 230VAC  
012B - 12VDC/w diode\*  
024B - 24VDC/w diode\*  
\*Optional arc suppression diode.

### 9 Connector Types<sup>1</sup>

Blank - No coil  
G - ISO 4400 DIN 43650  
Q - Spade terminals  
W - Leadwire  
N - Deutsch (DC only)  
Y - Amp JR (DC only)  
D - Metripack 150 male (DC only)  
J - Metripack 280 male (DC only)

### 10 Coil Series<sup>1</sup>

Blank - No Coil  
J - 10 series, 23W

### 11 Coil Special Features<sup>1</sup>

Blank - None

### 12 Valve Special Features<sup>1</sup>

00 - None  
(Only required if valve has special features, omitted if "00.")

<sup>1</sup> These model digits are not stamped on the valve.

# SV9-10 - Solenoid Valve

## Dimensions

mm (inch)

Torque cartridge in aluminum or steel housing  
34-41 Nm (25-30 ft. lbs).

Valve is shown with "W" coil. See other coils in Section C.

**Note:** When solenoid valve is ordered as cartridge only, coil nut is included.

When solenoid valve is ordered without coils, it will be supplied with only the nut. The spacer must be ordered separately.

This valve uses the J series, 23 W coil.

### Spare Parts

Coil nut	565558
Coil spacer	02-179226



### WARNING

Maintain 5-8 Nm (4-6 ft. lbs) maximum torque on valve tube nut. Over tightening may cause valve failure.

