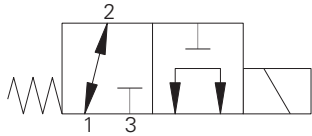


# SV1A/B-12-3 - Solenoid Valve

3-way, 2-position spool type solenoid valve  
Up to 34 L/min (9 USgpm) • 210 bar (3000 psi)

A



## Operation

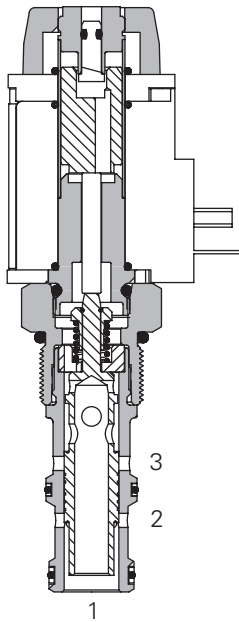
In the de-energized position this valve allows flow from port 1 to 2 while port 3 is blocked.

In the energized position flow is allowed from port 3 to port 1 while port 2 is blocked.

## Features

Hardened, ground and honed working parts to limit leakage. IP69K Tough coil compatibility. Continuously rated. Compact design with low pressure drop. Rated pressure on all ports.

## Sectional View



## Performance

Ratings and Specifications

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

Typical application pressure	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Rated flow	SV1A-12-3: 38 L/min (10 USgpm) max flow port 1 to port 2-27 L/min (7 USgpm) SV1B-12-3: 42 L/min (11 USgpm) max flow port 1 to port 2-34 L/min (9 USgpm)
Internal leakage	300 cm <sup>3</sup> /min (21.5 in <sup>3</sup> /min) max @ 210 bar (3000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Coil duty	Continuous from 85% to 110% of nominal voltage
Cavity	C-12-3
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	SV1A-12-3: 0,68 kg (1.5 lbs) SV1B-12-3: 0,86 kg (1.9 lbs)
Seal kit	9900171-000 (Buna-N), 9900172-000 (Viton)

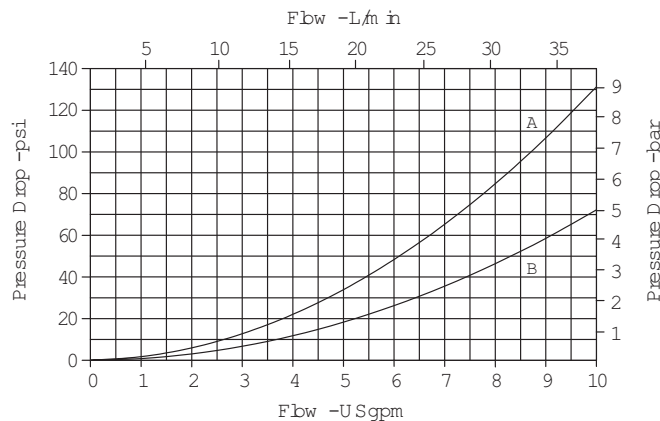
Viton is a registered trademark of E.I. DuPont

## Description

This is a 3-way 2-position, direct acting, spool type solenoid valve. This valve can be used in applications requiring separate pressure and tank lines, such as a single acting cylinder or any other application where a three way two position solenoid valve is needed.

## Pressure Drop

Cartridge only



A - Port 3 to port 1 energized

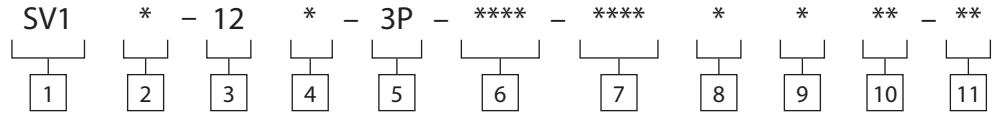
B - Port 1 to port 2 de-energized

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# SV1A/B-12-3 - Solenoid Valve

3-way, 2-position spool type solenoid valve  
Up to 34 L/min (9 USgpm) • 210 bar (3000 psi)

Model Code



**1** Function  
SV1 - Solenoid valve

**2** Max Flow  
A - 38 L/min (10 USgpm)  
B - 42 L/min (11 USgpm)

**3** Size  
12 - 12 size

**4** Seal Material  
Blank - Buna-N  
V - Viton\*

**5** Style  
3P - 3 way, push type  
manual override

**6** Port Size  
Code Port Size Housing Number

Code	Port Size	Housing Number
0	Cartridge only	
A6G	3/4" BSP	02-161816
A12H	SAE 12	02-160646

**7** Voltage rating  
00 - No coil  
12D - 12VDC  
24D - 24VDC  
12B - 12VDC/w diode\*  
24B - 24VDC/w diode\*

**8** Connector types  
Blank - No coil  
G - ISO 4400 DIN 43650  
W - Flying lead  
C - Deutch on Leads  
H - Metripak 150 on Leads  
F - Weatherpak Male on Leads  
For coil dimensions see section C.

**9** Coil types  
Blank - No coil  
L - L series (30W EN 490)  
used for SV1A-12  
R - R series (30W) used  
for SV1B-12

**10** Coil special features  
Blank - No coil  
00 - No special feature

**11** Special features  
00 - None  
(Only required if valve has special  
features, omitted if "00")  
SF - Soft shift

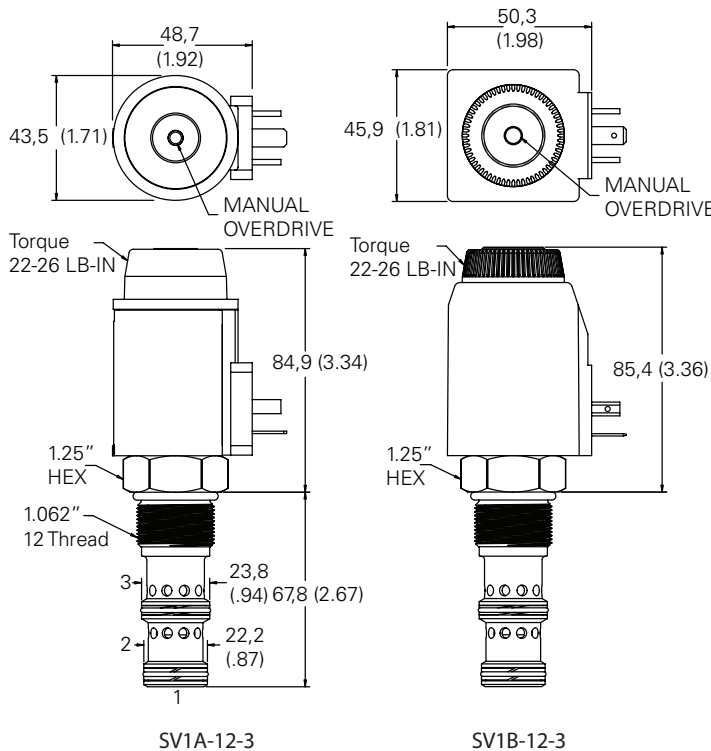
## Dimensions

mm (inch)

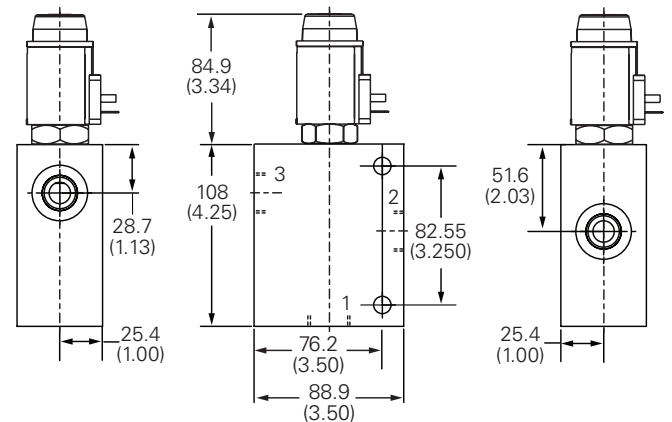
Torque cartridge in aluminum  
housing 81-95 Nm (60-70 ft lbs)

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

## Cartridge Only



## Installation Drawing



**WARNING**  
Maintain 2.5-3 Nm  
(1.8-2.2 ft lbs)  
maximum torque on valve  
tube nut. Over tightening may  
cause valve failure.