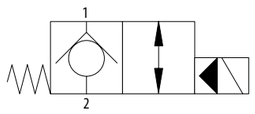
SV3-12-C/CM/CR - Solenoid valve

2-way, 2-position, normally closed, poppet type solenoid valve
114 L/min (30 USgpm) • 210 bar (3000 psi)



Operation

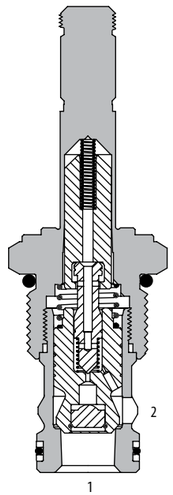
In the de-energized position the valve blocks flow from port 2 to 1 and free flow is allowed from port 1 to 2.

When the solenoid is energized the pilot poppet is pulled off the seat allowing the valve to open in both directions.

Features

Hardened and ground working parts. Lapped seat for low leakage. IP69K Tough coil compatibility. Continuously rated. Compact design with low pressure drop.

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)
Rated flow	114 L/min (30 USgpm)
Internal leakage (port 2 to port 1)	less than 5 drops/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
Response times (100% rated voltage and flow)	Energize: 75 ms De-Energize: 150 ms
Cavity	C-12-2 or C-12-2U Add "U" after number if undercut is required. If undercut is not specified, expect 10 psi @ 15 USgpm and 20 psi @ 30 USgpm higher pressure drop.
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	0,336 kg (0.74 lbs)
Seal kit	02-165889 (Buna-N), 02-165888 (Viton®)

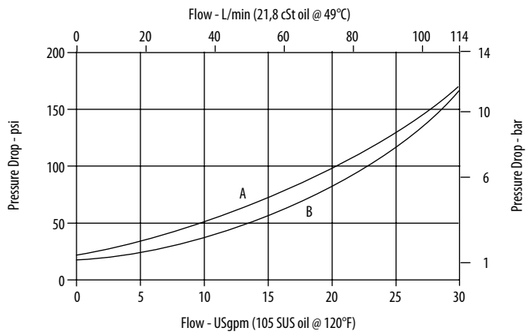
Viton is a registered trademark of E.I. DuPont

Description

This is a 2-way, 2-position, poppet type, pilot operated, normally closed solenoid valve. This valve is used in applications requiring low leakage, such as load holding applications or as a general purpose diverter or dump valve.

Pressure drop curves

Cartridge only



A - Port 1 to port 2 de-energized
B - Port 2 to port 1 energized

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

SV3-12-C/CM/CR - Solenoid valve

2-way, 2-position, normally closed, poppet type solenoid valve
114 L/min (30 USgpm) • 210 bar (3000 psi)

Model code

SV3 – 12 (V) – C (*) – (A) – *** – **** * – 00
1 2 3 4 5 6 7 8 9 10

1 Function
SV3 - Solenoid valve

2 Size
12 - 12 size

3 Seal material
Blank - Buna-N
V - Viton®

4 Style
C - Normally closed

5 Manual override option
Blank - No manual override
M - Knob type
R - Cable type

For valve dimensions with manual override option installed see page A-980.

6 Valve housing material
Omit for cartridge only
A - Aluminum (standard)
S - Steel

7 Port size

Code	Port size	Housing number	
		Aluminium	Steel
0	Cartridge only		
4G	1/2" BSPP	02-161118	02-172062
4GU	1/2" BSPP	02-161116	02-172512
6G	3/4" BSPP	02-161117	02-169665
6GU	3/4" BSPP	02-161115	02-162922
10T	SAE 10	02-160640	02-169744
10TU	SAE 10	02-160641	02-169817
12T	SAE 12	02-160644	02-169782
12TU	SAE 12	02-160645	02-169790

See section J for housing details.

8 Voltage rating
00 - No coil
12D - 12VDC
24D - 24VDC
36D - 36VDC
24A - 24VAC
115A - 115VAC
230A - 230VAC
12B - 12VDC/w diode*
24B - 24VDC/w diode*
*Optional arc suppression diode.

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

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

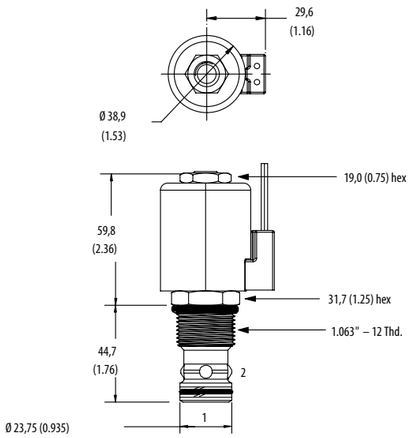
Dimensions
mm (inch)

Torque cartridge in housing
A - 81-95 Nm (60-70 ft lbs)
S - 102-115 Nm (75-85 ft lbs)

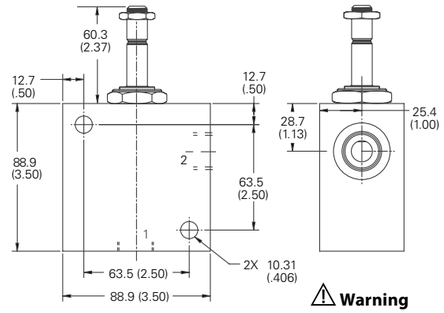
Note: When solenoid valve is ordered as cartridge only, coil nut is included.

Note: Use J series, 23 W coils with this solenoid valve.

Cartridge only



Installation drawing (Aluminum)



⚠ Warning
Maintain 5-8 Nm (4-6 ft lbs) maximum torque on valve tube nut.

Over tightening may cause valve failure.

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