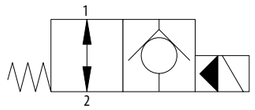
SV3-12-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
114 L/min (30 USgpm) • 210 bar (3000 psi)



Operation

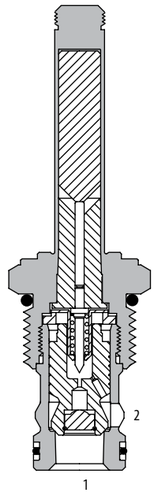
In the de-energized position the valve allows free flow in both directions.

When the solenoid is energized the pilot poppet closes the orifice and the valve closes blocking flow from port 2 to 1 while allowing free flow from port 1 to 2.

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
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 hydraulics fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 17/**15/12**
Housing material (standard)	Aluminum
Weight including coil	0,336 kg (0.74 lbs)
Seal kit	02-165889 (Buna-N), 02-165888 (Viton®)

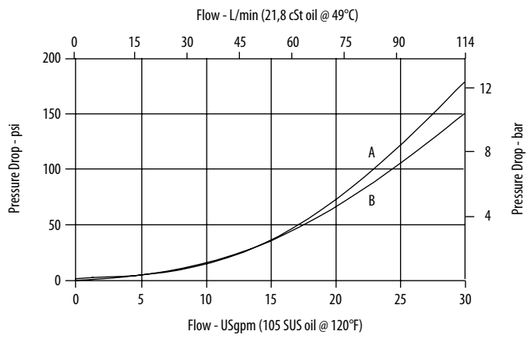
Viton is a registered trademark of E.I. DuPont

Description

This is a 2-way, 2-position, poppet type, pilot operated, normally open 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

Cartridge only



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

SV3-12-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
114 L/min (30 USgpm) • 210 bar (3000 psi)

Model code

SV3 – 12 (V) – O (*) – (A) *(U) – **** * – 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

O - Normally open

5 Manual override option

Blank - No manual override
P - Push type
S - Screw type

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

6 Valve housing material

Omit for cartridge only
A - Aluminum

7 Port size

Code	Port size	Housing number	Cavity
0	Cartridge only		
4G	1/2" BSPP	02-161118	C-12-2
6G	3/4" BSPP	02-161117	C-12-2
10T	SAE 10	02-160640	C-12-2
12T	SAE 12	02-160644	C-12-2
4GU	1/2" BSPP	02-161116	C-12-2U
6GU	3/4" BSPP	02-161115	C-12-2U
10TU	SAE 10	02-160641	C-12-2U
12TU	SAE 12	02-160645	C-12-2U

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)

For dimensions see section C.

10 Special features

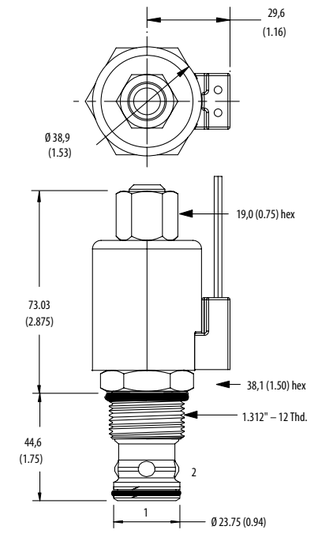
00 - None

(Only required if valve has special features, omitted if "00.")

Dimensions

mm (inch)

Cartridge only

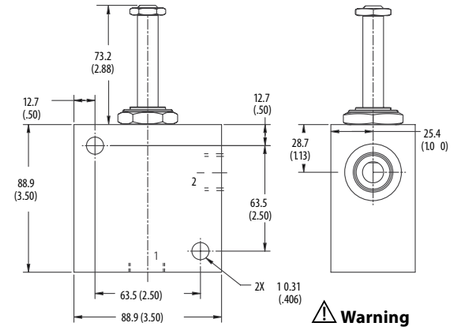


Torque cartridge in aluminum housing 81-95 Nm (60-70 ft lbs)

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

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

Installation drawing



⚠ Warning

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

Over tightening may cause valve failure.