

SV3-12-O/OP/OS

Poppet type, normally open solenoid valve

Description

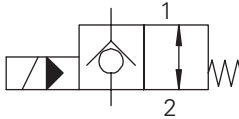
The SV3-12-O is a 2-way, 2-position, poppet-type, pilot-operated, normally open solenoid cartridge valve.

Operation

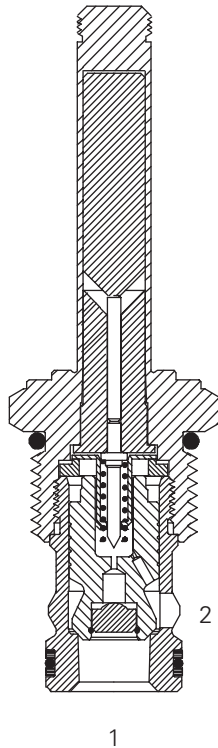
In the de-energized position, flow can pass through the valve from port 1 to port 2, or from port 2 to port 1.

In the energized position, flow is blocked from port 2 to port 1, and allowed from port 1 to port 2 when the coil force is overcome.

Functional Symbol



Sectional View



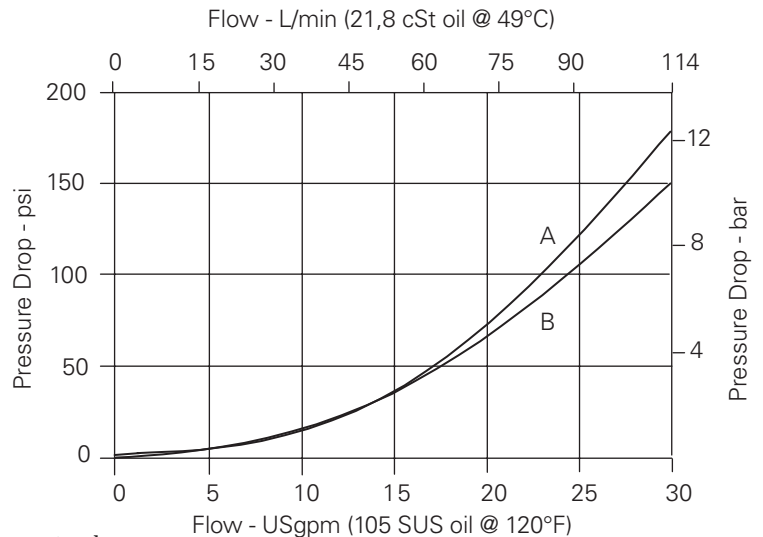
RATINGS AND SPECIFICATIONS

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 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

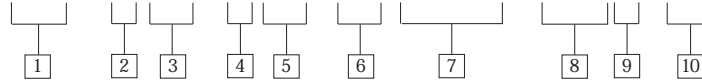
Pressure Drop Curves

Cartridge only



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

SV3 – 12 (V) – O (*) – (A) * (U) – ***** * – 00**



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-152.

6 Valve housing material
 Omit for cartridge only
A - Aluminum

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.

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

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 housings.

8 Voltage rating

00 - No coil	24A - 24VAC
12D - 12VDC	115A - 115VAC
24D - 24VDC	230A - 230VAC
36D - 36VDC	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 - Leadwire
N - Deutsch (DC only)
Y - Amp JR (DC only)
D - Metripack 150 male (DC only)
J - Metripack 280 male (DC only)

For coil dimensions see Section C.

10 Special features
00 - None
 (Only required if valve has special features, omitted if "00.")
 Note
 Use J series, 23 W coils with this solenoid valve.

