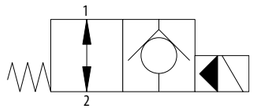
SV13-12-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
114 L/min (30 USgpm) • 350 bar (5000 psi)



Operation

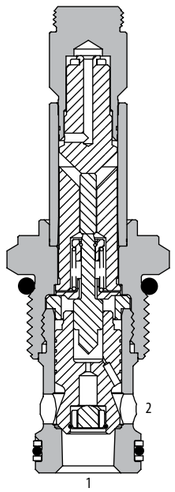
In the de-energized position the valve allows free flow in both directions.

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. 350 bar working pressure.

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)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	310 bar (4500 psi)
Rated flow	114 L/min (30 USgpm)
Internal leakage	less than 5 drops/min, max @ 350 bar (5000 psi)
Temperature range	-40° to 100°C (-40° to 212°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 18/**16/13**
Housing material (standard)	Steel
Weight including coil	0,27 kg (0.59 lbs)
Seal kit	02-165889 (Buna-N), 02-165888 (Viton®)

Viton is a registered trademark of E.I. DuPont

Description

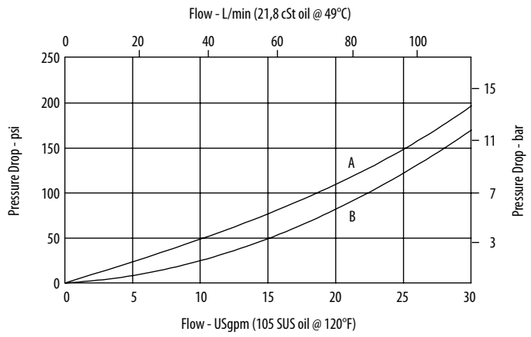
This is a 2-way, 2-position, poppet type, high pressure, pilot operated, normally open solenoid valve. This valve is used in applications requiring low leakage, such as load holding applications or as a general purpose diverter or dump valve.

Application Note:

This value is pilot operated and requires a minimum flow of 1-2 L/min (0.3-0.5 USgpm) in order to shift. For operation at very low flow conditions contact your Danfoss representative.

Pressure drop

Cartridge only



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

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

SV13-12-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
114 L/min (30 USgpm) • 350 bar (5000 psi)

Model code

SV13 – 12 (V) – O (*) – (S) ** – ** * H – 00**

1 2 3 4 5 6 7 8 9 10 11

1 Function
SV13 - 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
Blank - Cartridge only
S - Steel

7 Port size

Code	Port size	Housing number
0	Cartridge only	
4G	1/2" BSPP	02-175062
4GU	1/2" BSPP	02-172512
6G	3/4" BSPP	02-169665
6GU	3/4" BSPP	02-162922
10T	SAE 10	02-169744
10TU	SAE 10	02-169817
12T	SAE 12	02-169782
12TU	SAE 12	02-169790

See section J for housings.

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 Coil series
H - 10 series, 29 W

For coil dimensions see section C.

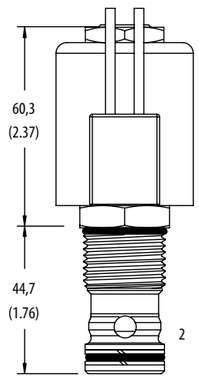
11 Special features
00 - None

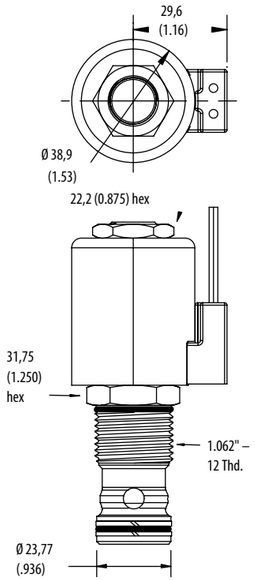
(Only required if valve has special features, omitted if "00.")

Dimensions

mm (inch)

Cartridge only

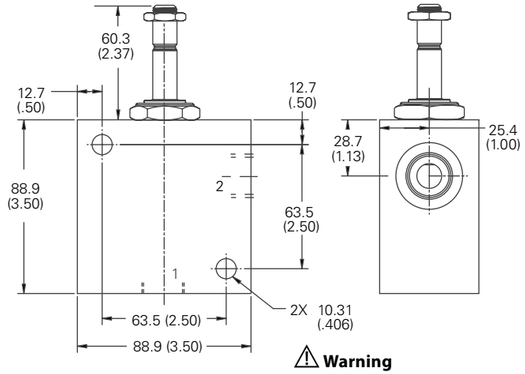




Torque cartridge in steel housing
102-115 Nm (75-85 ft lbs)

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.

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