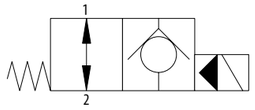
SV3-20-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
227 L/min (60 USgpm) • 210 bar (3000 psi)



Operation

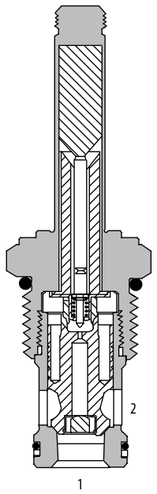
In the de-energized position the valve allows free flow in both directions.

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	227 L/min (60 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-20-2
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	1,2 kg (2.70 lbs)
Seal kit	889615 (Buna-N), 889619 (Viton*)

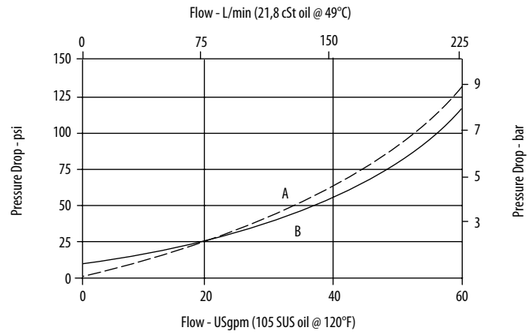
Viton is a registered trademark of E.I. DuPont

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

SV3-20-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve
227 L/min (60 USgpm) • 210 bar (3000 psi)

Model code

SV3 – 20 (V) – O (*) – * – **** * – 00**

1 2 3 4 5 6 7 8 9

1 Function
SV3 - Solenoid valve

2 Size
20 - 20 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 Port size

Code	Port size	Housing number
0	Cartridge only	
8B	1" BSPP	02-175464*
16T	SAE 16	566409*
6G	3/4" BSPP	876732
8G	1" BSPP	876734
12H	SAE 12	876733
16H	SAE 16	876735

*Light duty housing.
See section J for housing details.

7 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.

8 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 coil dimensions see section C.

9 Special features
00 - None

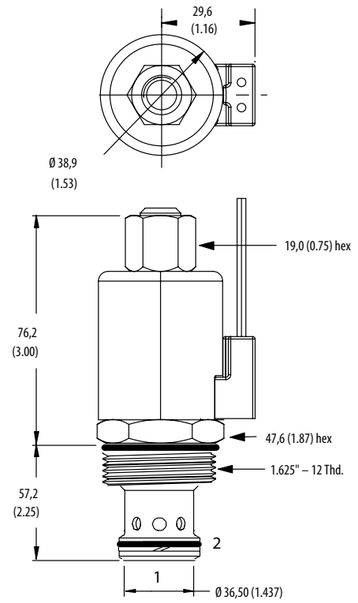
(Only required if valve has Special features, omitted if "00".)

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

Dimensions

mm (inch)

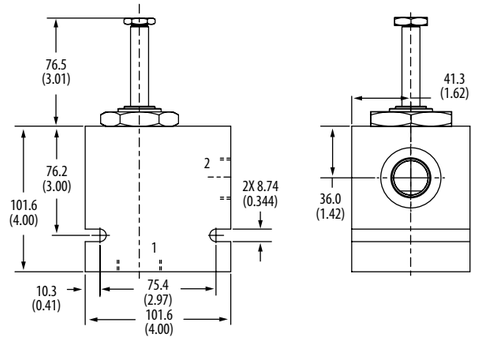
Cartridge only



Torque cartridge in aluminum housing 128-155 Nm (95-115 ft lbs)

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

Installation drawings



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