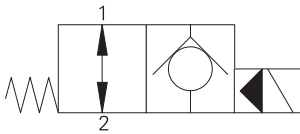


# SV13-10-O/OP/OS - Solenoid valve

Poppet type, normally open solenoid valve (free reverse flow)  
45 L/min (12 USgpm) • 350 bar (5000 psi)

A



## Operation

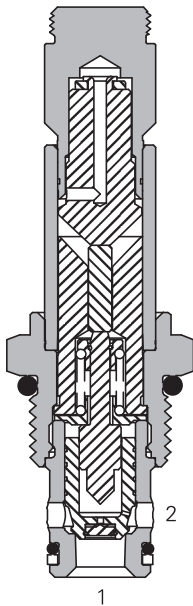
In the de-energized position the valve allows free flow in both directions.

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	45 L/min (12 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-10-2
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	0,18 kg (0.39 lbs)
Seal kit	565803 (Buna-N), 566086 (Viton®)

Viton is a registered trademark of E.I. DuPont

## Description

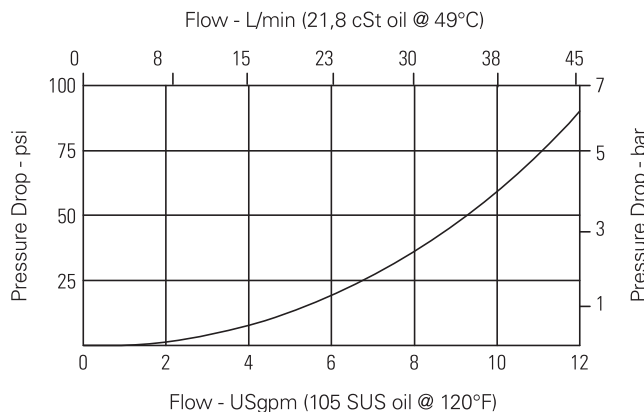
This is a 2-way, 2-position, poppet type, high pressure, pilot operated, normally open solenoid valve. This valve is used in applications requiring low leakage, such as load holding applications or as a general purpose diverter or dump valve.

### Application Note:

This valve 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 Eaton representative.

## Pressure drop

Cartridge only



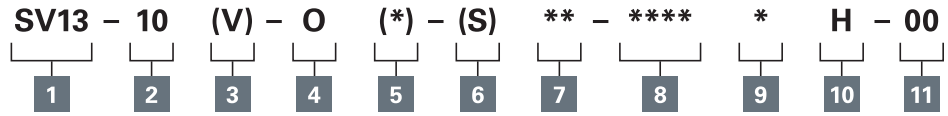
Port 1 to port 2 and port 2  
to port 1 de-energized

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

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Poppet type, normally open solenoid valve (free reverse flow)  
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## Model code



A

### 1 Function

**SV13** - Solenoid valve

### 2 Size

**10** - 10 size

### 3 Seal material

**Blank** - Buna-N

**V** - Viton<sup>®</sup>

### 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

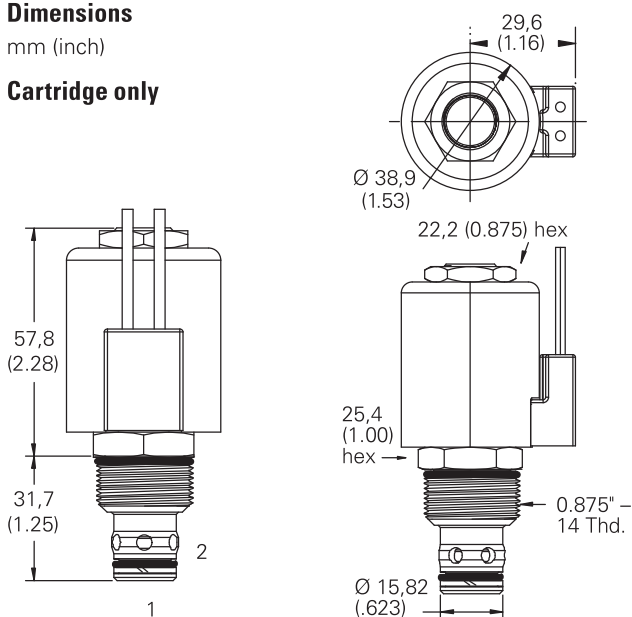
**Blank** - Cartridge only

**S** - Steel

### Dimensions

mm (inch)

#### Cartridge only



### 7 Port size

Code	Port size	Housing number
<b>0</b>	Cartridge only	
<b>2G</b>	1/4" BSPP	02-175102
<b>3G</b>	3/8" BSPP	02-175103
<b>6T</b>	SAE 6	02-175100
<b>8T</b>	SAE 8	02-175101

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 Coil series

**H** - 10 series, 29W

For coil part numbers and dimensions see section C.

### 11 Special features

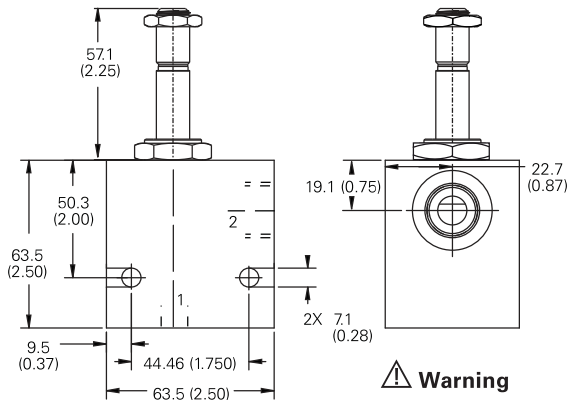
**00** - None

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

Torque cartridge in steel housing 68-75 Nm (50-55 ft lbs)

**Note:** When solenoid valve is ordered as cartridge only, 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.