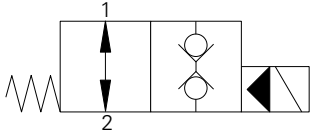


# SBV11-10-O - Solenoid Bi-directional Valve

Bi-directional, normally open solenoid valve  
76 L/min (20 USgpm) • 350 bar (5000 psi)

**A**



## Operation

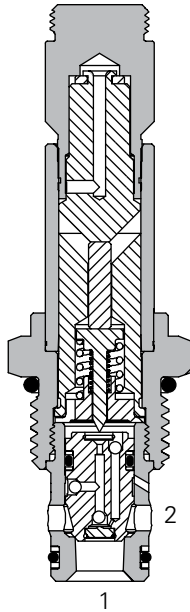
In the de-energized position the valve is open in both directions. A series of internal check valves allows full flow in both directions.

When the solenoid is energized the pilot poppet closes the pilot orifice causing the main poppet to close.

## 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	76 L/min (20 USgpm)
Internal leakage, port 1 to port 2 or port 2 to port 1	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)	Aluminum or Steel
Weight including coil	0,18 kg (0.39 lbs)
Seal kit	565806 (Buna-N), 889627 (Viton®)

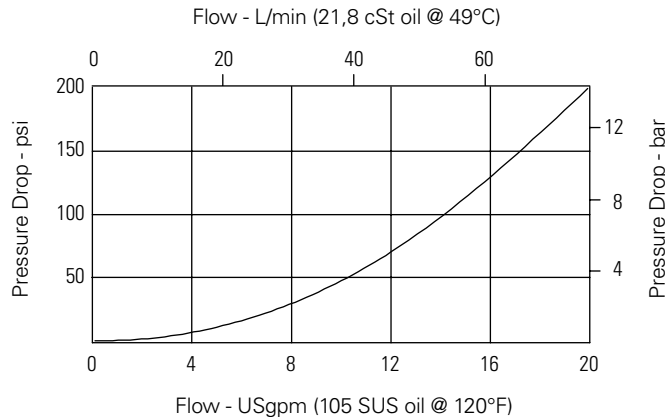
Viton is a registered trademark of E.I. DuPont

## Description

This is a 2-way 2-position, high pressure bi-directional, pilot operated, normally open poppet type screw in cartridge valve. The valve is ideal for isolating and holding actuators in position.

## Pressure Drop

Cartridge only



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



available at:

ATP Hydraulik AG

Aahusweg 8

CH-6403 Küssnacht am Rigi

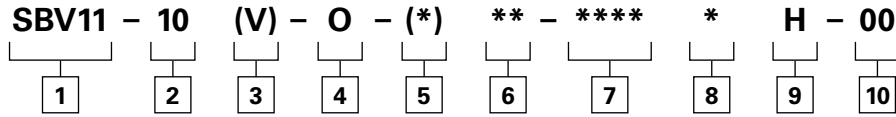
[www.atphydraulik.com](http://www.atphydraulik.com)

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

# SBV11-10-O - Solenoid Bi-directional Valve

Bi-directional, normally open solenoid valve  
76 L/min (20 USgpm) • 350 bar (5000 psi)

## Model Code



**1 Function**  
SBV11 - Solenoid bi-directional valve

**2 Size**  
10 - 10 size

**3 Seal Material**  
Blank - Buna-N  
V - Viton®

**4 Style**  
O - Normally open

**5 Valve Housing Material**  
Blank - Cartridge only  
A - Aluminum  
S - Steel

**6 Port Size**

Code	Port Size	Housing Number	
		Aluminium	Steel
0	Cartridge only		
2G	1/4" BSPP	876702	02-175102
3G	3/8" BSPP	876703	02-175103
3B	3/8" BSPP	02-175462*	-
6H	SAE 6	876700	-
6T	SAE 6	566151*	02-175100
8H	SAE 8	876701	-
8T	SAE 8	-	02-175101

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

**7 Voltage Rating**

00	No coil	115A	115VAC
12D	12VDC	230A	230VAC
24D	24VDC	12B	12VDC/w diode*
36D	36VDC	24B	24VDC/w diode*
24A	24VAC		*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)

**9 Coil Series**  
H - 10 series, 29W  
For coil part numbers and dimensions see section C.

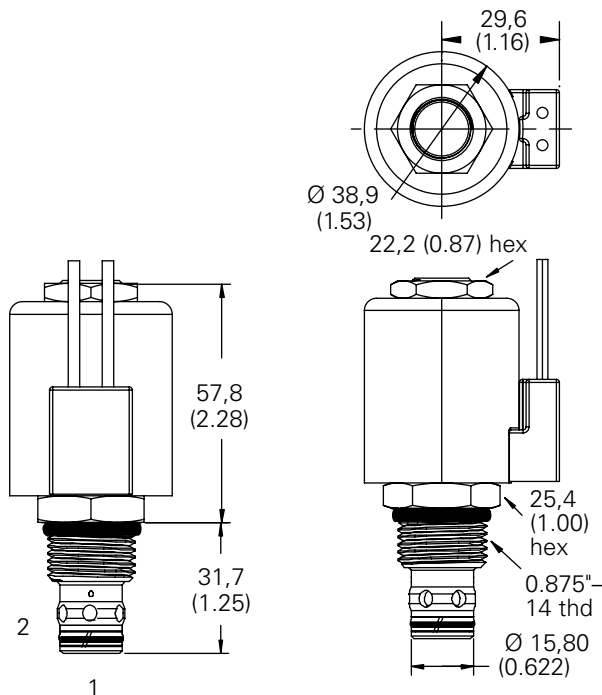
**10 Special Features**  
00 - None  
(Only required if valve has special features, omitted if "00".)

**Dimensions**  
mm (inch)

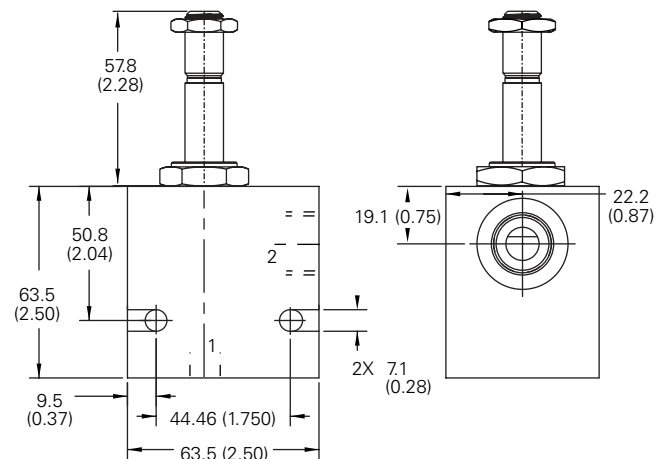
Torque cartridge in housing  
A - 47-54 Nm (35-40 ft lbs)  
S - 68-75 Nm (50-55 ft lbs)

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

## Cartridge Only



## Installation Drawing (Steel)



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

**WARNING**  
Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings **must** be used for operating pressures above 210 bar (3000 psi).