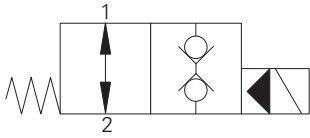


# SBV11-12-O - Solenoid Valve

Bi-directional, poppet type, normally open solenoid valve  
 114 L/min (30 USgpm) • 350 bar (5000 psi)

A



## Operation

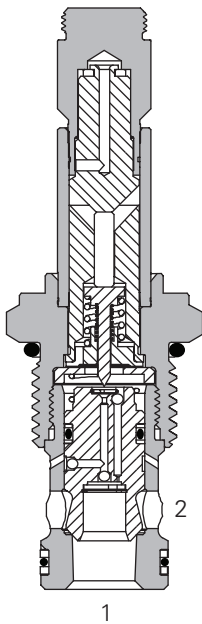
In the de-energized position the valve is open in both directions. A series of internal check valves allows full flow in both directions.

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

### 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	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)	Aluminum or steel
Weight including coil	0,27 kg (0.59 lbs)
Seal kit	02-165889 (Buna-N), 02-165888 (Viton®)

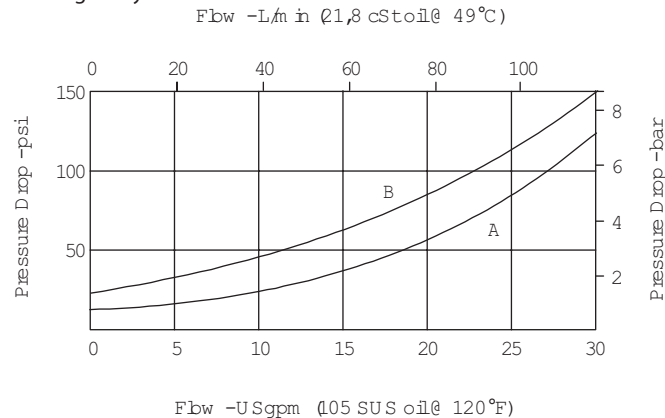
Viton is a registered trademark of E.I. DuPont

## Description

This is a 2-way 2-position, 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



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



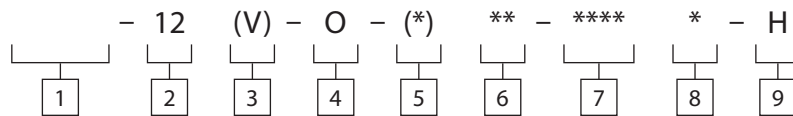
available at:  
 ATP Hydraulik AG  
 Aahusweg 8  
 CH-6403 Küsnacht am Rigi  
[www.atphydraulik.com](http://www.atphydraulik.com)

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

# SBV11-12-O - Solenoid Valve

Bi-directional, poppet type, normally open solenoid valve  
114 L/min (30 USgpm) • 350 bar (5000 psi)

## Model Code



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

**2** Size  
12 - 12 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

Code	Port Size	Housing Number	
		Aluminium	Steel
0	Cartridge only		
4G	1/2" BSPP	02-161118	02-172062
4GU	1/2" BSPP	02-161116	02-172512
6G	3/4" BSPP	02-161117	02-169665
6GU	3/4" BSPP	02-161115	02-162922
10T	SAE 10	02-160640	02-169744
10TU	SAE 10	02-160641	02-169817
12T	SAE 12	02-160644	02-169782
12TU	SAE 12	02-160645	02-169790

See section J for housings.

<b>7</b> 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.

**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)

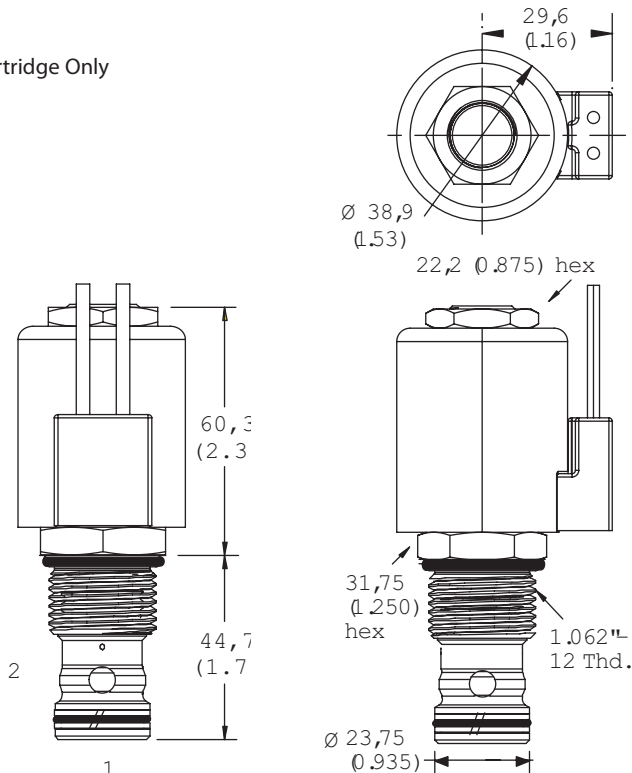
**9** Coil Series  
H - 10 series, 29 W  
For coil dimensions see section C.

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

## Dimensions

mm (inch)

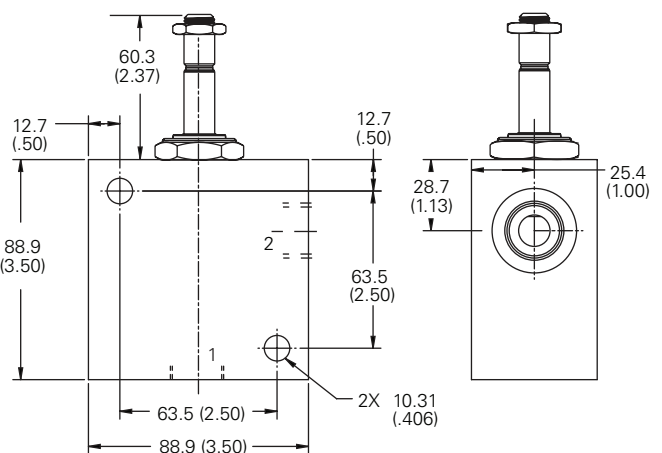
### Cartridge Only



Torque cartridge in housing  
A - 81-95 Nm (60-70 ft lbs)  
S - 102-115 Nm (75-85 ft lbs)

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

### 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).