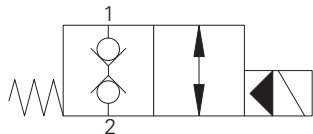


SBV11-12-C - Solenoid Valve

2-way, 2-position, normally closed, bi-directional, poppet type solenoid valve

114 L/min (30 USgpm) • 350 bar (5000 psi)



Operation

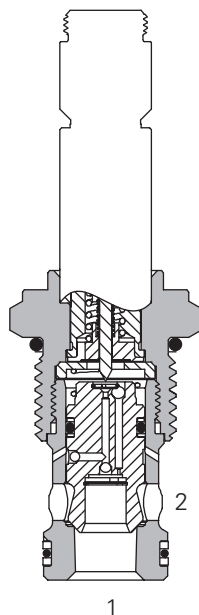
In the de-energized position the valve is blocked in both directions.

When the solenoid is energized the pilot poppet is released from the seat allowing the main poppet to open. A series of internal check valves allows full flow in both directions.

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, port 1 to port 2 and port 2 to port 1 | 5 drops/min, max @ 350 bar (3000 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 hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc. |
|--------|---|

| | |
|------------|---------------------------|
| Filtration | Cleanliness code 18/16/13 |
|------------|---------------------------|

| | |
|-----------------------------|-------------------|
| Housing material (standard) | Aluminum or steel |
|-----------------------------|-------------------|

| | |
|-----------------------|--------------------|
| Weight cartridge only | 0,27 kg (0.59 lbs) |
|-----------------------|--------------------|

| | |
|----------|---------------------------------------|
| Seal kit | 02-165889 (Buna-N), 02-165888 (Viton) |
|----------|---------------------------------------|

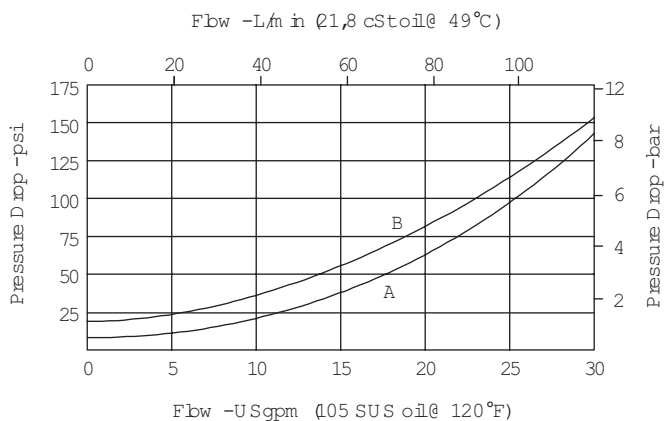
Viton is a registered trademark of E.I. DuPont

Description

This is a 2-way 2-position, high pressure bi-directional, pilot operated, normally closed 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

ATP HYDRAULIK

available at:

ATP Hydraulik AG

Aahusweg 8

CH-6403 Küssnacht am Rigi

www.atphdraulik.com

SBV11-12-C - Solenoid Valve

2-way, 2-position, normally closed, bi-directional, poppet type solenoid valve
114 L/min (30 USgpm) • 350 bar (5000 psi)

Model Code

| | | | | | | | | | |
|------------|---|---------------|---|-----------|---|------|---|--------|----|
| SBV11 - 12 | | (V) - C - (*) | | ** - **** | | * | | H - 00 | |
| └───┘ | | └──┘ | | └──┘ | | └──┘ | | └──┘ | |
| └──┘ | | └──┘ | | └──┘ | | └──┘ | | └──┘ | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

1 Function
SBV11 - Solenoid
bi-directional valve

2 Size
12 - 12 size

3 Seal Material
Blank - Buna-N
V - Viton[®]

4 Style
C - Normally closed

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 |

7 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)

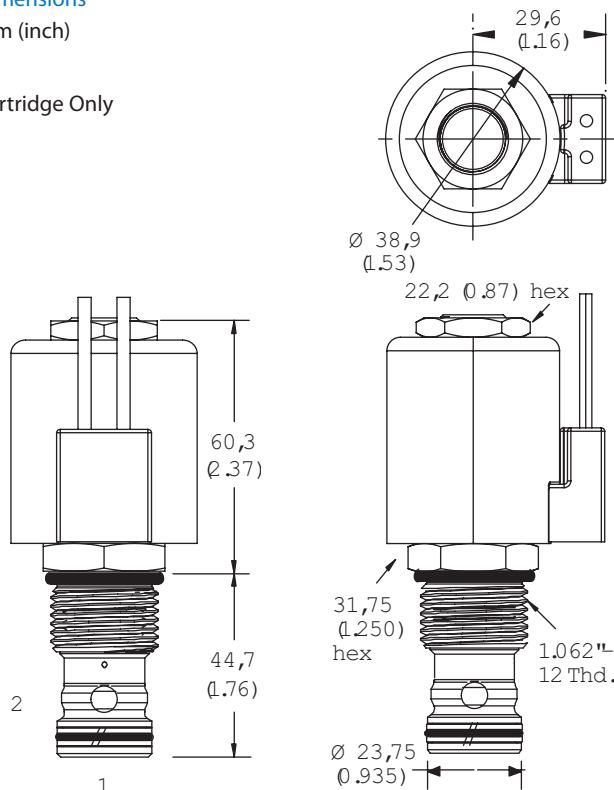
9 Coil Series
H - 10 series, 29 W
For coil part numbers and dimensions see section C.

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

Dimensions

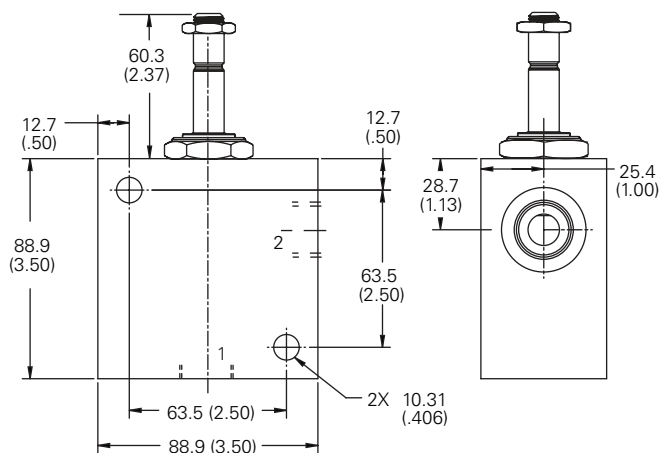
mm (inch)

Cartridge Only



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

Installation Drawing (Steel)



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

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).