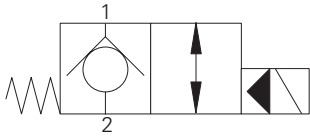


# SV3-12-C/CM/CR - Solenoid Valve

2-way, 2-position, normally closed, poppet type solenoid valve  
114 L/min (30 USgpm) • 210 bar (3000 psi)

A



## Operation

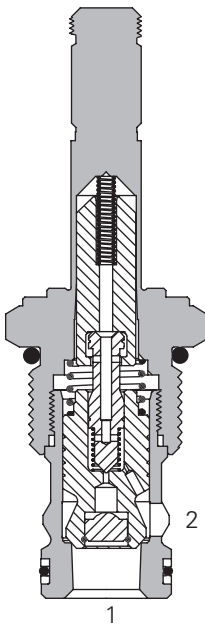
In the de-energized position the valve blocks flow from port 2 to 1 and free flow is allowed from port 1 to 2.

When the solenoid is energized the pilot poppet is pulled off the seat allowing the valve to open 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.

## 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)
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Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
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Rated flow	114 L/min (30 USgpm)
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Internal leakage (port 2 to port 1)	less than 5 drops/min, max @ 210 bar (3000 psi)
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Temperature range	-40° to 120°C (-40° to 248°F)
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Coil duty	Continuous from 85% to 110% of nominal voltage
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Response times (100% rated voltage and flow)	Energize: 75 ms De-Energize: 150 ms
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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.
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Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
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Filtration	Cleanliness code 18/16/13
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Housing material (standard)	Aluminum
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Weight including coil	0,336 kg (0.74 lbs)
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Seal kit	02-165889 (Buna-N), 02-165888 (Viton)
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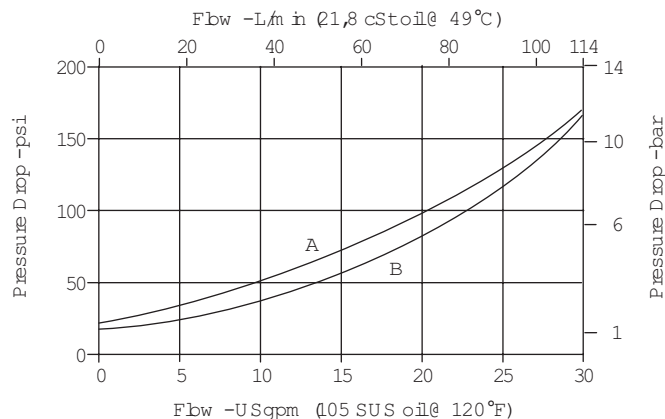
Viton is a registered trademark of E.I. DuPont

## Description

This is a 2-way, 2-position, poppet type, pilot operated, normally closed 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 Curves

Cartridge only



A - Port 1 to port 2 de-energized

B - Port 2 to port 1 energized

# SV3-12-C/CM/CR - Solenoid Valve

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

114 L/min (30 USgpm) • 210 bar (3000 psi)

## Model Code

SV3	-	12	(V)	-	C	(*)	-	(A)	-	***	-	****	*	-	00
1		2	3		4	5		6		7		8	9		10

**1** Function  
SV3 - Solenoid valve

**2** Size  
12 - 12 size

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

**4** Style  
C - Normally closed

**5** Manual Override Option  
Blank - No manual override  
M - Knob type  
R - Cable type  
Forvalvedimensionswithmanualover-  
rideoptioninstalledseepageA-980.

**6** Valve Housing Material  
Omit for cartridge only  
A - Aluminum (standard)  
S - Steel

**7** Port Size

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 housing details.

**8** 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.

**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** Special Features

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

## Dimensions

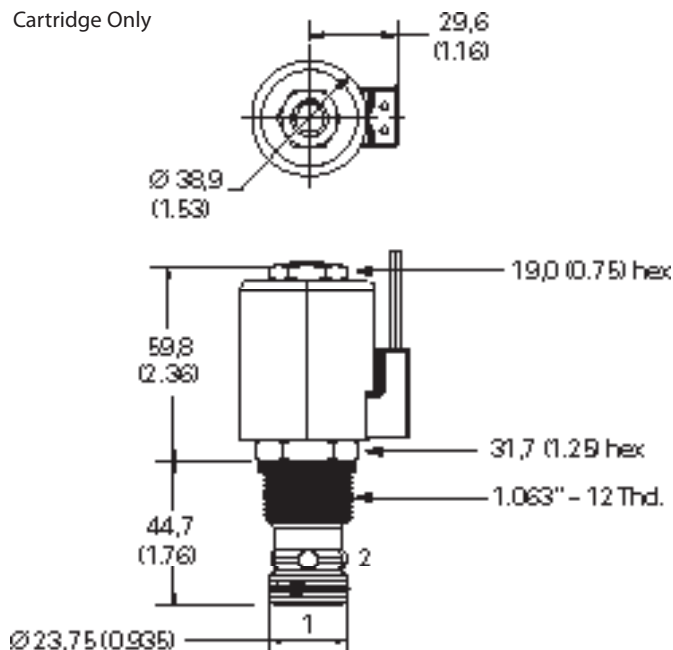
mm (inch)

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

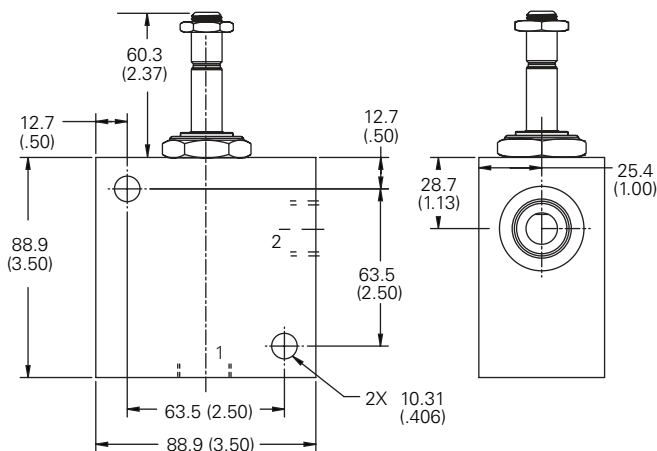
Note: When solenoid valve is ordered as cartridge only, coil nut is included.

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

Cartridge Only



Installation Drawing (Aluminum)



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