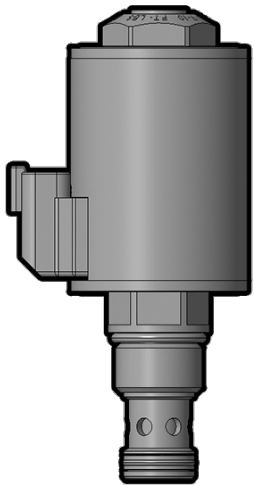




## Overview



### Description

A solenoid-operated, 2 port, normally open, direct-acting, spool-type, screw in hydraulic cartridge valve, designed to function as a bidirectional blocking valve.

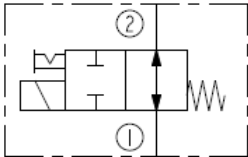
### Operation

When de-energized, the SV12-25 allows flow in both directions. When energized, the valves spool shifts to block flow in both directions.

### Features

- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.
- Cost-effective cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	240 bar (3500 psi)
Proof pressure	344.7 bar (5000 psi)
Burst pressure	779 bar (11300 psi)

### Flow Ratings

Flow rating	See performance chart	
Maximum internal leakage	410 ml/min (25 in <sup>3</sup> /min)	- <b>Note:</b> Inlet at port 2: Max at 240 bar (3500 psi)
	410 ml/min (35 in <sup>3</sup> /min)	- <b>Note:</b> Inlet at port 1: Max at 240 bar (3500 psi)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With Buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties	
Fluid viscosity range	7.4 to 420 cSt	
Maximum operating contamination level	20/18/14 per ISO 4406	

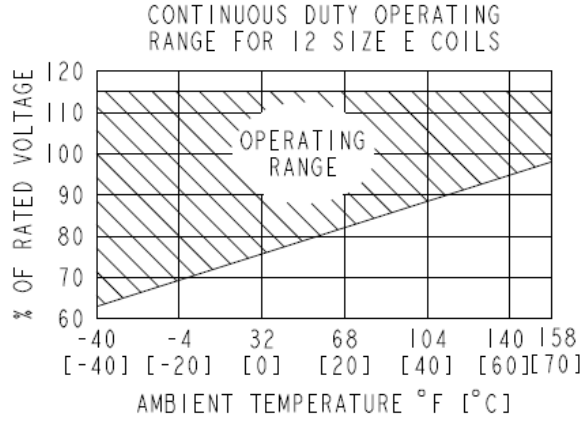
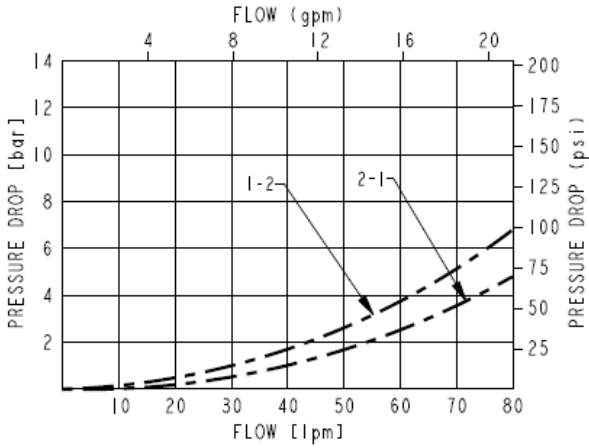
## Properties

Unit weight	0.25 kg (0.55 lb)	- <b>Note:</b> Std. valve
Internal wetted surface area	188 cm <sup>2</sup> (29.1 in <sup>2</sup> )	

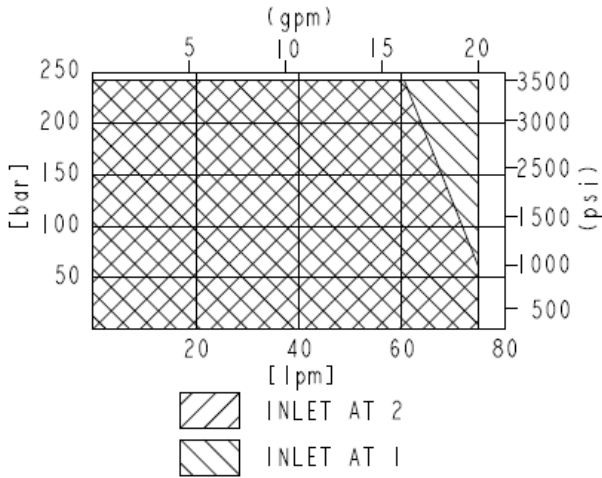


Performance

MINIMUM VOLTAGE LINE SHOWN FOR "CONTINUOUS DUTY OPERATING RANGE FOR 12 SIZE E-COILS" IS BASED ON APPLYING A % OF NOMINAL VOLTAGE AT THE COIL UNTIL CURRENT DRAW STABILIZES AT THE CURRENT LEVEL EQUALING TO 70% OF NOMINAL CURRENT DRAW OF A COIL INITIALLY POWERED IN AN AMBIENT TEMPERATURE OF 68°F [20°C]. THE VALVE AND COIL ASSEMBLY ARE INSTALLED IN THE CORRESPONDING AMBIENT WHILE VOLTAGE IS APPLIED TO MAINTAIN THE STABILIZE CURRENT DRAW.

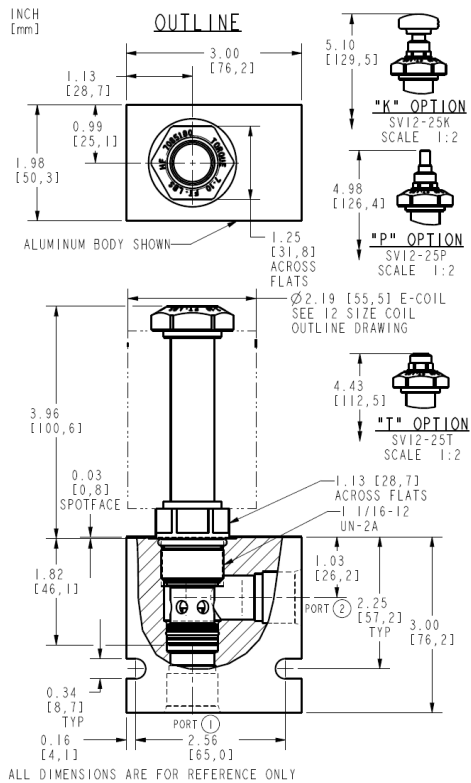


OPERATING LIMITS BASED ON A PULL-IN CURRENT OF 85% OF NOMINAL DROP-OUT CURRENT OF 5% OF NOMINAL.





## Dimensions



## Installation Specifications

Cavity	VC12-2
Cartridge installation torque	70.5 to 81.4 N-m (52 to 60 ft-lb)
Maximum allowable torque	122 N-m (90 ft-lb)
Coil nut torque	9.5 to 13.6 N-m (7 to 10 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK12-2X-M	- Note: X = seal option
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## Order Code

**ORDERING INFORMATION:**

SV12-25X-X-X-XXXX

**BASE MODEL**  
**NUMBER**

**ADJUSTMENT OPTIONS:**

NONE - BLANK  
PUSH - P  
THREADED DETENT - T  
PUSH WITH KNOB - K

**PORTING:**

CARTRIDGE ONLY - 0

**SEAL OPTION:**

BUNA N - N  
FLUOROCARBON - V

**COIL VOLTAGE:**

LESS COIL - 00  
12 VDC COIL - 12  
24 VDC COIL - 24

**COIL TERMINATION:**

E-COIL OPTIONS:

METRI-PACK CONNECTOR - EY  
DEUTSCH CONNECTOR - ER  
(2) LEADWIRES 18"  
STANDARD LENGTH - EL  
DUAL SPADES SAE J858a - ES  
DIN 43650 - EG  
WEATHER-PACK CONNECTOR - EW

**Model Options****SV12-25E-H-J-L****E Manual Override**

CODE	DESCRIPTION
BLANK	NONE
K	Momentary Push Override, Knob
P	Momentary Push Override, Button
T	Variable Position Override, Slotted Screw

**H Line Body**

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
16TD	Ductile Iron SAE 16
8B	Aluminum BSPP 1" (8)
8BD	Ductile Iron BSPP 1" (8)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

**L Coil**



CODE	DESCRIPTION
0	No Coil
12EG	12 VDC, E-Coil, DIN 43650
12EL	12 VDC, E-Coil, Dual Lead Wires
12EL/W	12 VDC, E-Coil, Dual Lead Wires with WeatherPak
12ER	12 VDC, E-Coil, Deutsch
12ER/Z	12 VDC, E-Coil, Deutsch with Zener Diode
12ES	12 VDC, E-Coil, Dual Spade
12EY	12 VDC, E-Coil, Metri-Pack 150
24EG	24 VDC, E-Coil, DIN 43650
24ER	24 VDC, E-Coil, Deutsch
24ER/Z	24 VDC, E-Coil, Deutsch with Zener Diode
24ES	24 VDC, E-Coil, Dual Spade