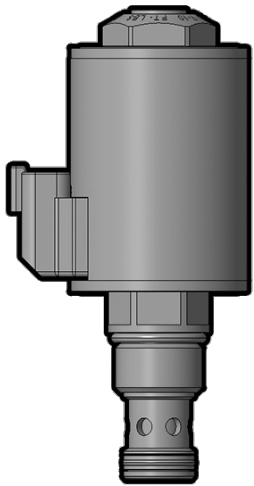


Overview



Description

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

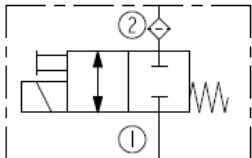
Operation

When de-energized, the SV12-24 blocks flow in both directions. When energized, the valves spool shifts to allow 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 ³ /min) - Note: Max at 240 bar (3500 psi)

Temperature Ratings

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

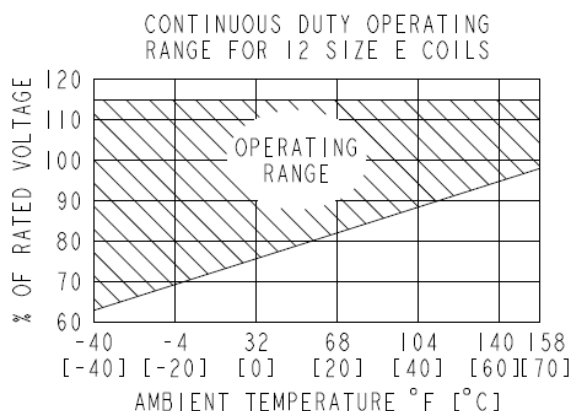
Operating Parameters

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)	- Note: Std. valve
Internal wetted surface area	188 cm ² (29.1 in ²)	

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.



INCH [mm]

OUTLINE

Top view dimensions:
 1.13 [28,7]
 3.00 [76,2]
 0.99 [25,1]
 1.98 [50,3]
 1.25 [31,8] ACROSS FLATS

Side view dimensions:
 5.10 [129,4]
 4.98 [126,4]

"K" OPTION
 SV12-24K
 SCALE 1:2

"P" OPTION
 SV12-24P
 SCALE 1:2

"T" OPTION
 SV12-24T
 SCALE 1:2

Other dimensions and labels:
 3.96 [100,5]
 0.03 [0,8] SPOTFACE
 1.82 [46,1]
 0.34 [8,7] TYP
 0.16 [4,1]
 2.56 [65,0]
 1.13 [28,7] ACROSS FLATS
 1 1/16-12 UN-2A
 1.03 [26,2]
 2.25 [57,2] TYP
 3.00 [76,2]
 PORT (1)
 PORT (2)
 Ø 2.19 [55,5] E-COIL
 SEE 12 SIZE COIL
 OUTLINE DRAWING

ALUMINUM BODY SHOWN

ALL DIMENSIONS ARE FOR REFERENCE ONLY

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



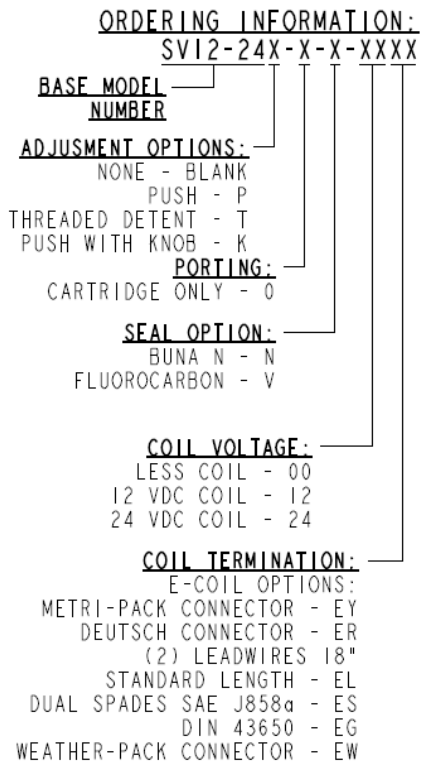
Accessories

Seal kit

SK12-2X-M

- **Note:** X = seal option

Order Code



Model Options

SV12-24E-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



CODE	DESCRIPTION
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