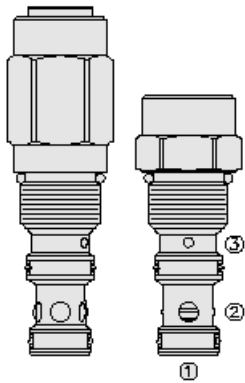




## Overview



### Description

The ev12-s34xx is a screw-in, cartridge style, spool-type, hydraulic directional element.

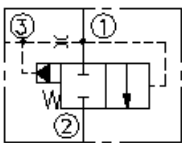
### Operation

It is a spring biased blocking valve which will shift to allow full flow from port 1 to 2 only when port 3 is vented to create a pressure drop across the internal orifice which exceeds the pressure of the bias spring value.

### Features

- Multiple function/application potential.
- Low pressure drop.
- Industry-common cavity.
- Smooth shift transition.
- Optional tall cap version for higher bias spring values.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating 345 bar (5000 psi)

### Flow Ratings

Flow rating See performance graph  
 Maximum internal leakage 164 ml/min (10 in<sup>3</sup>/min) - **Note:** At 207 bar (3000 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
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

## Operating Parameters

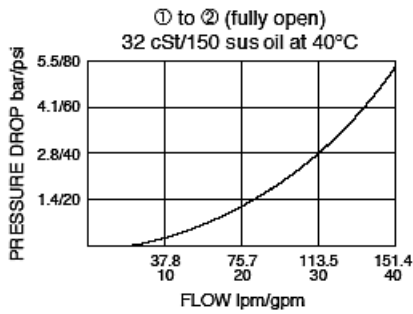
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

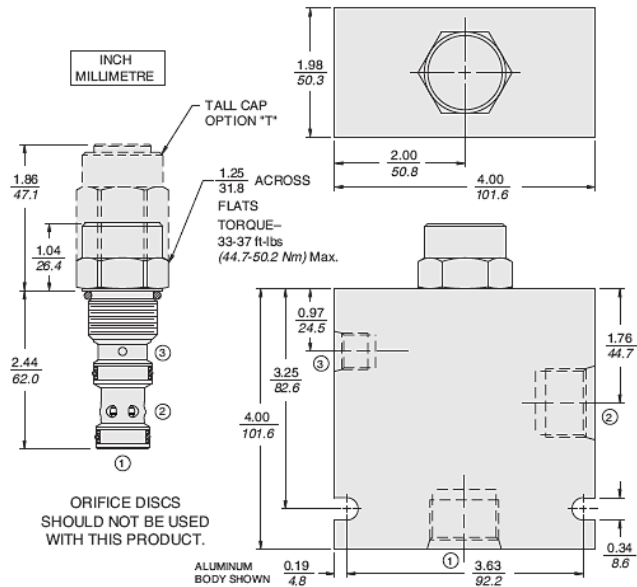
Unit weight	0.41 kg (0.9 lb) - <b>Note:</b> EV12-S34T
	0.28 kg (0.61 lb) - <b>Note:</b> EV12-S34
Internal wetted surface area	253 cm <sup>2</sup> (39.23 in <sup>2</sup> ) - <b>Note:</b> EV12-S34T
	206 cm <sup>2</sup> (31.91 in <sup>2</sup> ) - <b>Note:</b> EV12-S34



## Performance



## Dimensions



## Installation Specifications

Cavity	VC12-S3
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK12-S3X-MM	- <b>Note:</b> X = seal option
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## Order Code



## ORDERING INFORMATION

EV12-S34XX-X-X-XXX

BASE MODEL NUMBER

ADAPTOR OPTIONS:

STANDARD - (BLANK)

\* TALL CAP - T

CAGE OPTIONS:

REGULAR - (BLANK)

METERING - G

PORTING:

CARTRIDGE ONLY - 0

SEALS:

BUNA N - N

FLUOROCARBON - V

\*\* POLYURETHANE - P

BIAS SPRING VALUE:

10 psi [0,7 bar] - 10

40 psi [2,8 bar] - 40

80 psi [5,5 bar] - 80

100 psi [6,9 bar] - 100

160 psi [11,0 bar] - 160

240 psi [16,5 bar] - 240

\* "T" TALL CAP REQUIRED FOR  
160 AND 230 BIAS SPRINGS.

\*\* REQUIRED FOR PRESSURES  
OVER 3500 psi [241 bar].

**Model Options****EV12-S34CD-H-J-R****C Adaptor Option**

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

**D Cage Option**

CODE	DESCRIPTION
BLANK	Standard Cage
G	Metering (staggered holes)

**H Line Body**

CODE	DESCRIPTION
0	No Body
12T	Aluminum SAE 12
12TD	Ductile Iron SAE 12
6BD	Ductile Iron BSPP 3/4" (6)

**J Seal**

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

**R Spring**

CODE	DESCRIPTION
10	10 psi Bias Spring



CODE	DESCRIPTION
40	40 psi Bias Spring
80	80 psi Bias Spring
100	100 psi Bias Spring
160	160 psi Bias Spring
240	240 psi Bias Spring