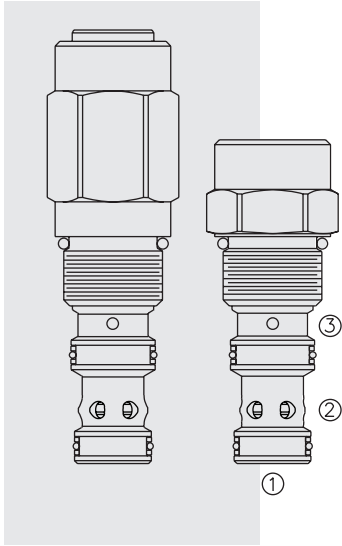


# EV12-S34 Vented Spool-Type Logic Element



## DESCRIPTION

A spool-type, screw-in, cartridge-style, hydraulic directional element, with multi-function potential when used with other directional, pressure, or flow control devices. The valve can be ordered with a selection of bias springs and a "G" metering option for metered flow when opening. The tall cap option is required for higher bias springs.

## OPERATION

The EV12-S34 is a spring-biased blocking valve with an internal pilot orifice. It will shift to allow full flow from 1 to 2 only when 3 is vented to create a pressure drop across the internal orifice which exceeds the pressure value of the selected bias spring force. EV12-S34 is a vent-to-open directional valve. The EV12-S34 can also be specified with a metering cage ("G" option) to regulate the gain in flow upon opening.

## FEATURES

- Multiple function/application potential.
- Smooth shift transition.
- Low pressure drop.
- Industry common cavity.
- Tall cap option is required for higher bias spring values.
- "G" metering option for metered flow control when opening.

## RATINGS

**Operating Pressure:** 345 bar (5000 psi) cartridge

**Flow Rating:** See Performance Chart

**Internal Leakage:** 164 ml/minute (10 cu. in./minute) max. at 207 bar (3000 psi)

**Operating Temperature:** -40 to 100°C (-40 to 212°F) with standard Buna seals;

-26 to 204°C (-15 to 400°F) with fluorocarbon seals;

-54 to 104°C (-65 to 225°F) with polyurethane seals.

**Filtration:** See page 9.010.1

**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

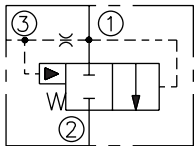
**Installation:** Orifice discs should not be used with this valve. See page 9.020.1

**Cavity:** VC12-S3; See page 9.112.1

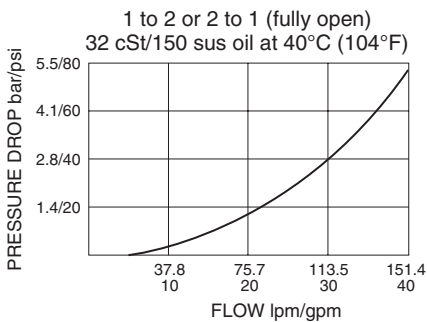
**Cavity Tool:** CT12-S3xx; See page 8.600.1

**Seal Kit:** SK12-S3x-MM; See page 8.650.1

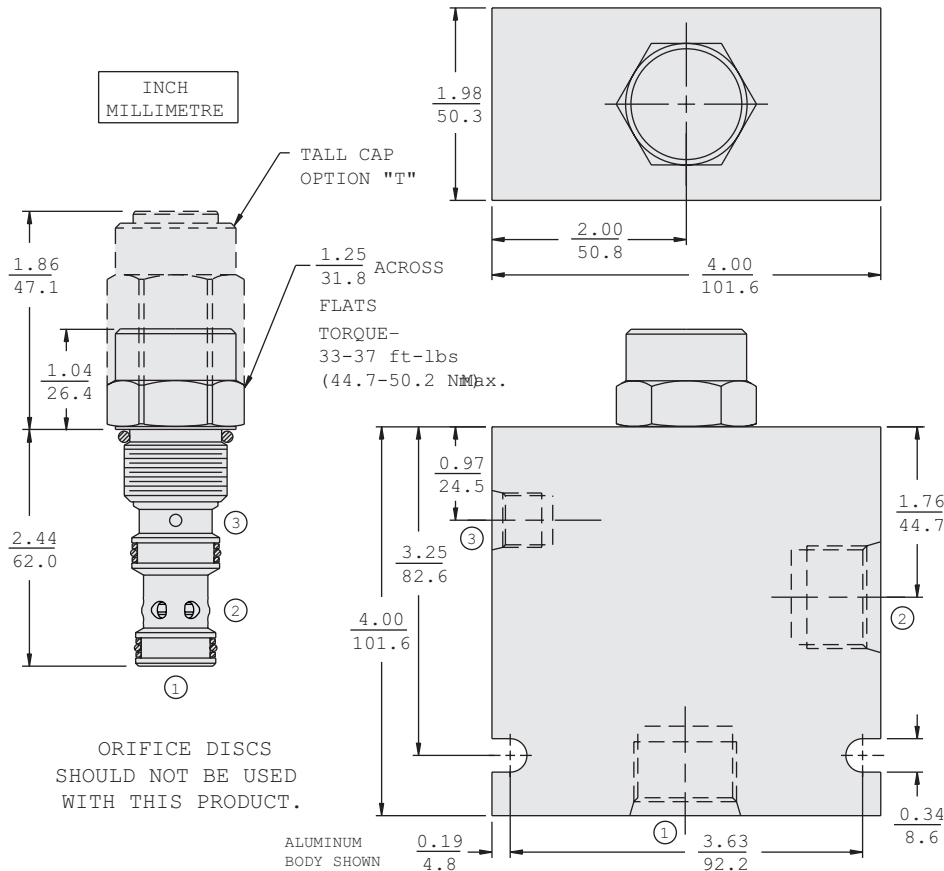
## ISO SYMBOL



## PERFORMANCE (Cartridge Only)



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.28 kg. (0.61 lbs.)  
Tall Cap Option Weight: 0.41 kg.  
(0.9 lb.) Steel with hardened work  
surfaces. Zinc-plated exposed  
surfaces. Buna N seals standard.

**Standard Ported Body:** Weight:  
1.13 kg. (2.5 lbs.) Anodized high-  
strength aluminum alloy, rated to  
207 bar (3000 psi). Ductile iron  
bodies available; dimensions may  
differ. See page 8.012.1

## TO ORDER

### EV12-S34

#### Adapter Option

None (Blank)

Tall Cap **T**

#### Cage Option

Regular (Blank)

Metering **G**

#### Porting

Cartridge Only **0**  
SAE 12\* **12T**

\*SAE 6 vent port

#### Bias Spring

**10** 0.7 bar (10 psi)  
**40** 2.8 bar (40 psi)  
**80** 5.5 bar (80 psi)  
**100** 7 bar (100 psi)  
**†160** 11 bar (160 psi)  
**†240** 16.5 bar (240 psi)

† T (Tall Cap) Option required  
for 160 and 240 bias springs

#### Seals

**N** Buna N (Std.)  
**V** Fluorocarbon  
**P** Polyurethane\*\*  
\*\* For pressures over  
240 bar [3500 psi]