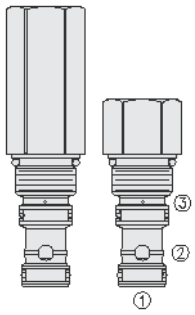
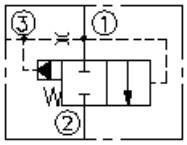
DIRECTIONAL ELEMENT, VENTED

Overview



SYMBOL



Description

The ev10-s34xx is a screw-in, cartridge style, spool-type, hydraulic directional element.

Operation

The ev10-s34xx is a spring-biased blocking valve which will shift to allow flow from 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 force. EV10-S34 is a vent-to-open directional valve.

Features

- Multiple function/application potential.
- Low pressure drop.
- Smooth shift transition.
- Industry-common cavity.

Ratings

Pressure Ratings

Pressure rating: 345 bar (5000 psi)

Flow Ratings

Flow rating: See performance graph

Maximum internal leakage: 164 ml/min (10 in^3/min)

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

-54 to 107 °C (-65 to 225 °F) note: 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: 0.27 kg (0.6 lb) note: Ev10-s34tx

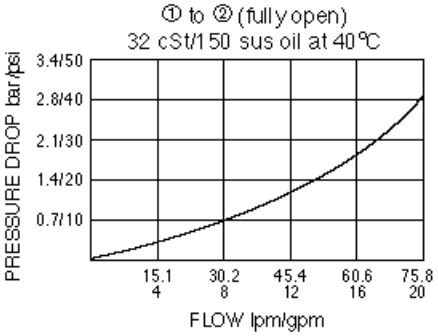
0.14 kg (0.3 lb) note: EV10-S34X

Internal wetted surface area: 189 cm^2 (29.3 in^2) note: Ev10-s34tx

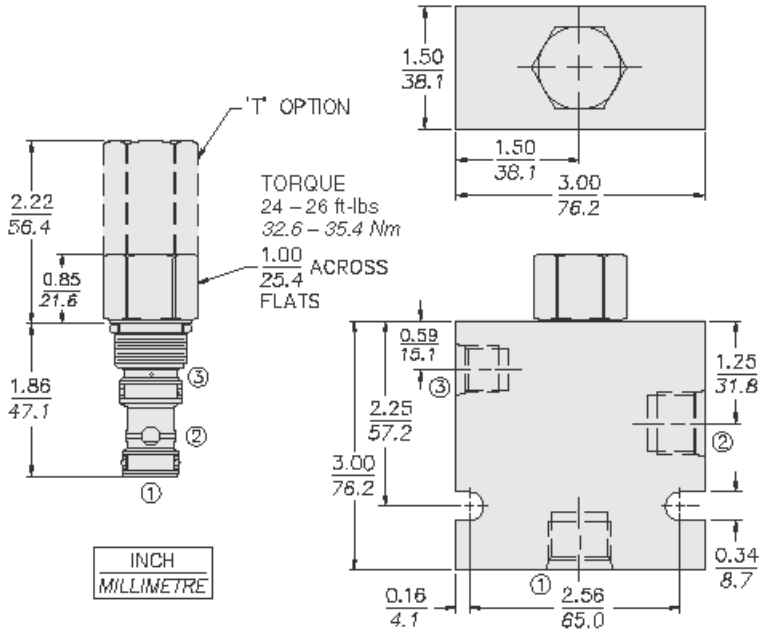
121 cm^2 (31.9 in^2) note: EV10-S34X

DIRECTIONAL ELEMENT, VENTED

Performance



Dimensions



Installation Specifications

Cavity: VC10-S3

10-size-3-way Cavities

Cartridge installation torque: 32.5 to 35.3 N-m (24 to 26 ft-lb)

Orientation restriction: None

Accessories

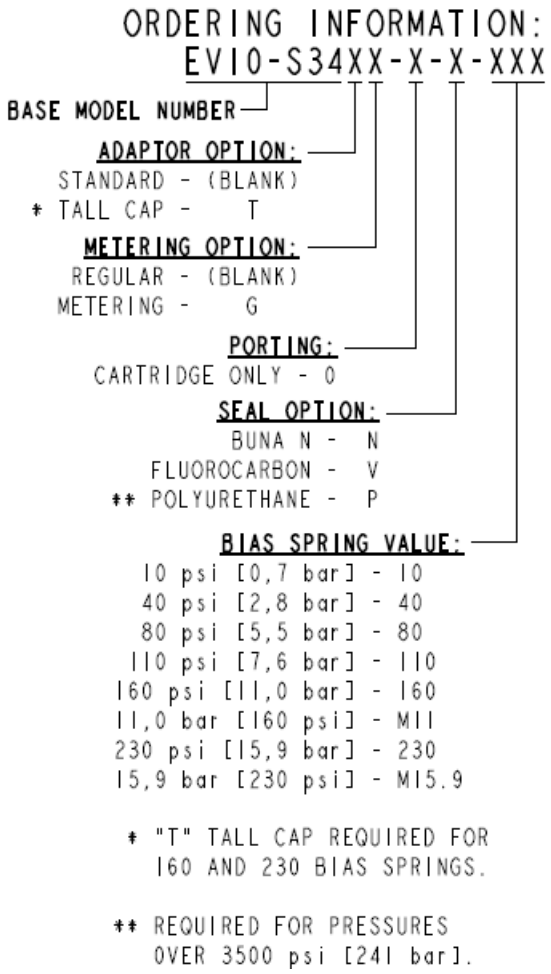
Seal kit: SK10-S3X-MM

Seal kit installation instructions

Housings: Available 10-3w valve bodies

DIRECTIONAL ELEMENT, VENTED

Order Code



Model Options

EV10-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

J Seal

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

DIRECTIONAL ELEMENT, VENTED

R Spring

CODE	DESCRIPTION
10	10 psi Bias Spring
40	40 psi Bias Spring
80	80 psi Bias Spring
110	110 psi Bias Spring
160	160 psi Bias Spring
230	230 psi Bias Spring