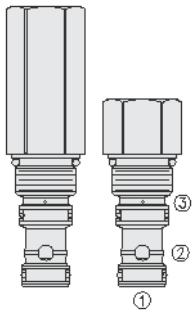
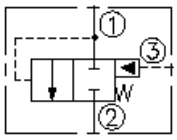
DIRECTIONAL ELEMENT, PILOTED

## Overview




*SYMBOL*




### Description

The ep10-s35xx is a screw-in, cartridge style, pilot to close hydraulic directional element.

### Operation

The valve is a spring-biased blocking valve which will shift to allow full flow from port 1 to 2 only when the pressure at port 1 exceeds the cumulative pressure of port 3 plus the bias spring pressure value.

### Features

- Multiple function/application potential.
- Range of bias spring pressure options. Tall cap required for 160, M11, 230, and M15.9 spring options.
- 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

-26 to 204 °C (-15 to 400 °F) note: With high durometer 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:** 0.14 kg (0.31 lb) note: EP10-S35

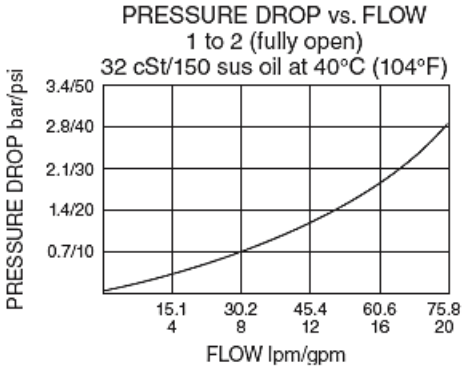
0.27 kg (0.60 lb) note: EP10-S35T

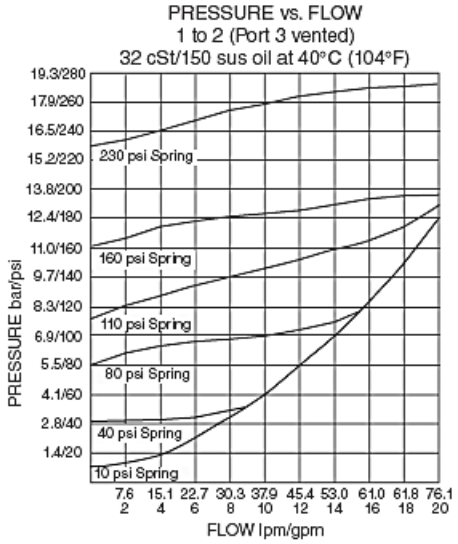
**Internal wetted surface area:** 123 $cm^2$ (19.0 $in^2$) note: Ep10s35

191 $cm^2$ (29.6 $in^2$) note: Ep10s35t

DIRECTIONAL ELEMENT, PILOTED

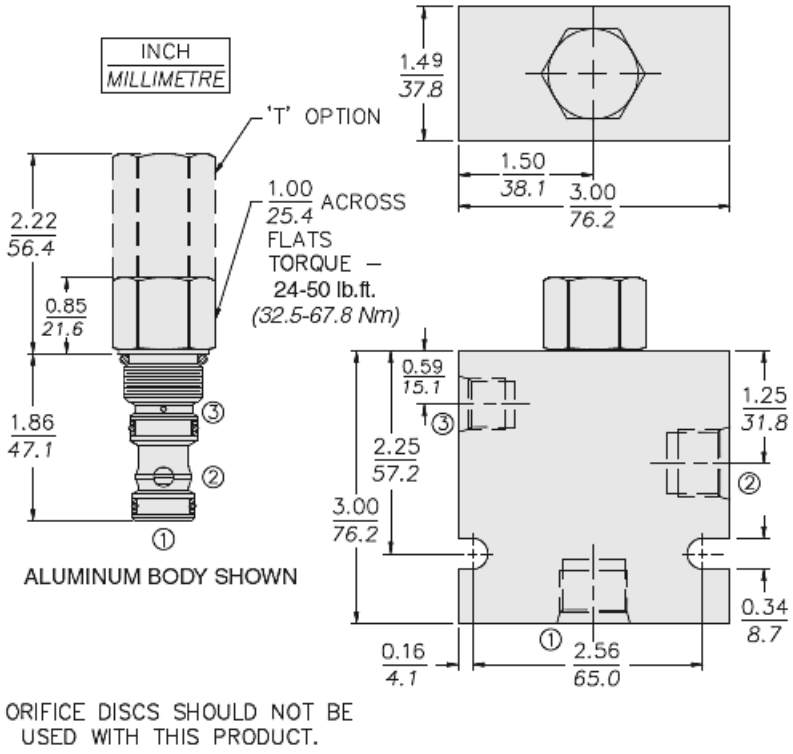
## Performance



DIRECTIONAL ELEMENT, PILOTED

## Dimensions




ORIFICE DISCS SHOULD NOT BE USED WITH THIS PRODUCT.

## 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)

**Maximum allowable torque:** 67.8 N-m (50 ft-lb)

**Orientation restriction:** None

## Accessories

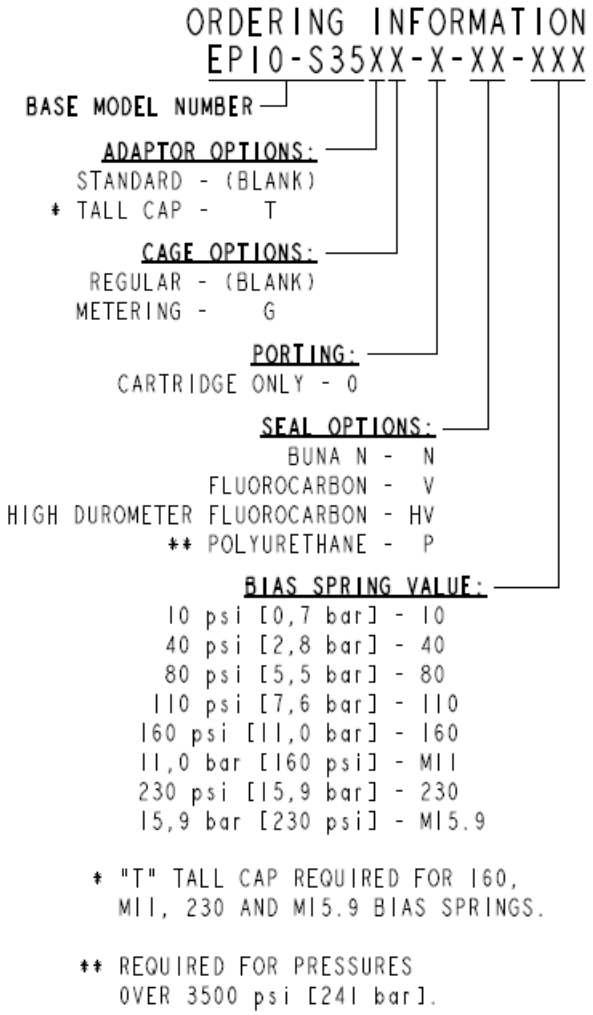
**Seal kit:** SK10-S3X-MM

Seal kit installation instructions

**Housings:** Available 10-3w valve bodies

DIRECTIONAL ELEMENT, PILOTED

## Order Code




### Model Options

**EP10-S36CD-H-J-R**

*C Adaptor Option*

| CODE | DESCRIPTION |
|---|---|
| BLANK | Standard Cap |
| T | Tall Cap |

*H Line Body*

| CODE | DESCRIPTION |
|---|---|
| 0 | No Body |
| 10T | Aluminum body SAE #10 ports |
| 10TD | Ductile Iron body SAE #10 ports |

*J Seal*

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

DIRECTIONAL ELEMENT, PILOTED

*R Spring*

| CODE | DESCRIPTION |
|---|---|
| 10 | 10 psi Bias Spring |
| 40 | 40 psi Bias Spring |
| 80 | 80 psi Bias Spring |
| 110 | 110 psi Bias Spring |
| M11 | 11 bar Bias Spring |
| 160 | 160 psi Bias Spring |
| 230 | 230 psi Bias Spring |
| M15.9 | 15.9 bar Bias Spring |